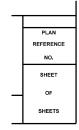
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NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

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₫	TIME	4:32:55 PM				REGION STATE	FED.AID PROJ.NO.				i
ᆸ	DATE	2/26/2021				10 WASH	STBG-0167(055)			<b>7</b>	i
È	PLOTTED BY	tolmane				10 WASH					ı
۲	DESIGNED BY	F. PETERS				18C526				Weehington State	ı
ğ	ENTERED BY	F. PETERS				100326				Washington State	ı
₹	CHECKED BY	E. TOLMAN				CONTRACT NO.	LOCATION NO.			Department of Transportation	$\vdash$
ĕ	PROJ. ENGR.	L. MOODY	AD3 - REVISED INDEX	02/24/2021	JW		XL5863	DATE	DATE		ı
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX		1



SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT INDEX** 

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290	SB17	CANTILEVER NO. 4 LAYOUT
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296	BP1	PLAN & SECTION
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PLAN
REFERENCE
NO.
SHEET
OF
SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

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ENTERED BY	F. PETERS				100326	
CHECKED BY	E. TOLMAN				CONTRACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY	AD3 - REVISED INDEX	02/24/2021	JW		XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY		

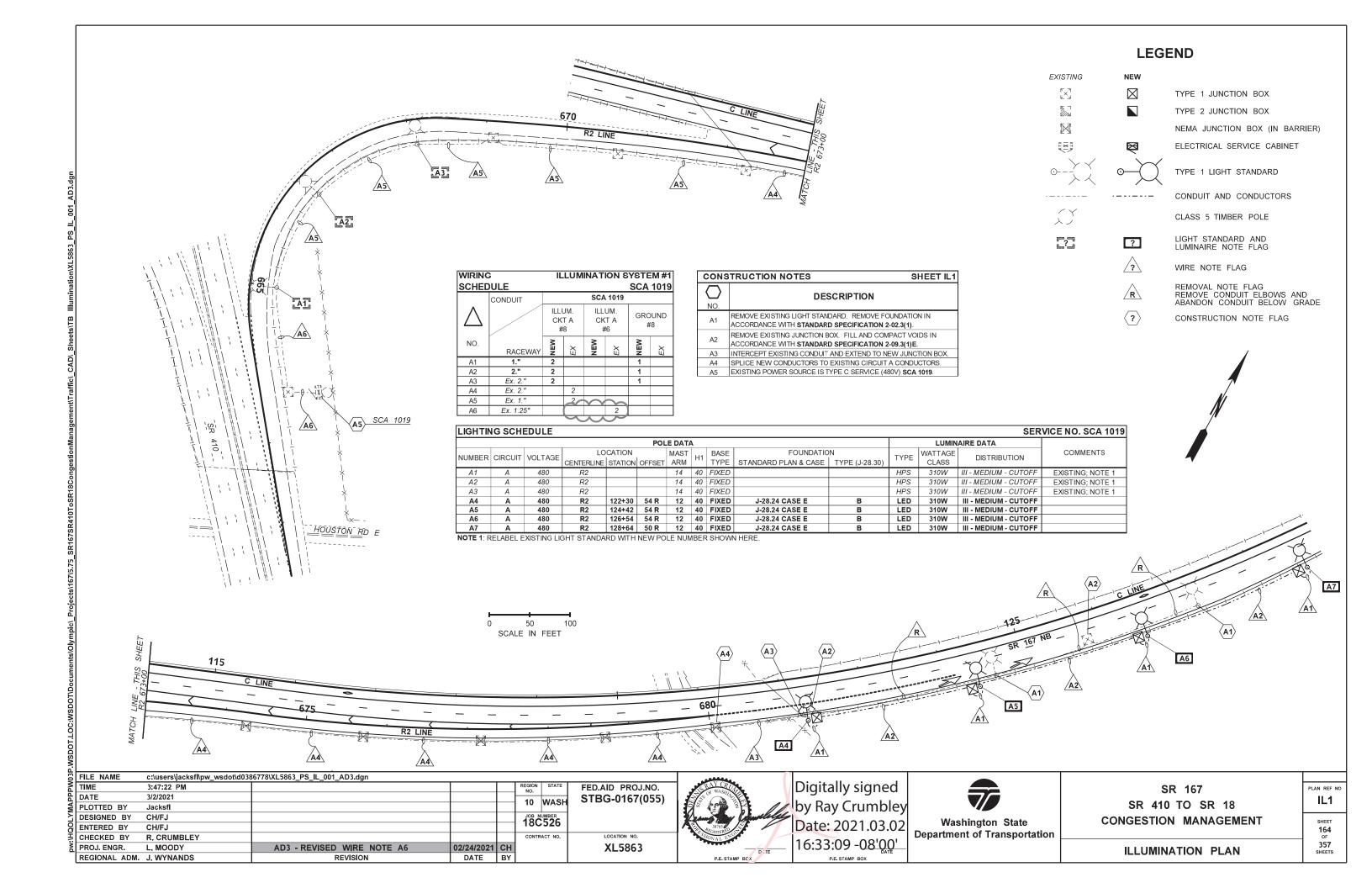


<b>7</b>
Washington State
Department of Transportation

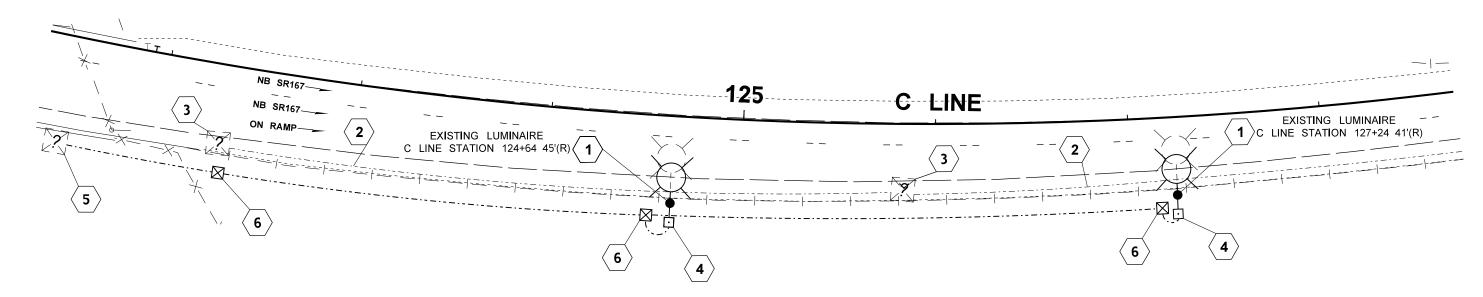
SR 167	
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IN4

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Change Order No.: 004
Contract No.: 009636



SCALE IN FEET

LEGEND

EXISTING JUNCTION BOX

CONDUIT

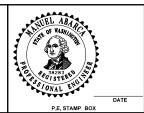
EXISITNG LUMINAIRE

NEW LUMINAIRE

NOTES

- 1. SYMBOLS SHOWN FOR CLARITY ONLY, NTS.
- 2. SEE ILLUMINATION SHEET IL1 FOR ADDITIONAL INFORMATION.

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DESIGNED BY	C. HINDS				JOB N	UMBER 526					
ENTERED BY	C. HINDS				100	,526					
CHECKED BY	M. ABARCA				CONTR	ACT NO.	LOCATION NO.				
PROJ. ENGR.	L. MOODY	CO #004 - TEMPORARY ILLUMINATION	7/1/21	СН			XL5863				
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY							



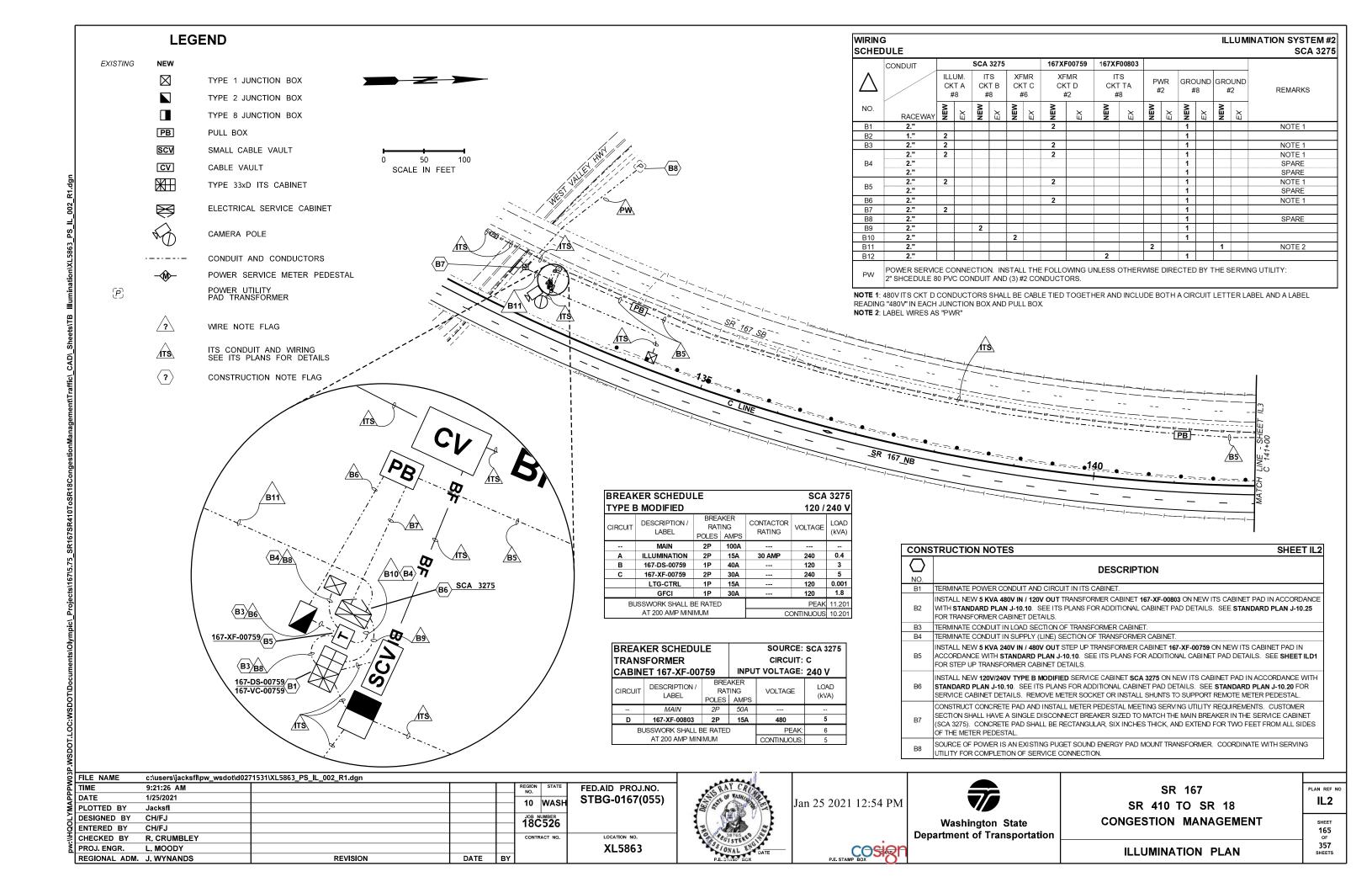
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SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

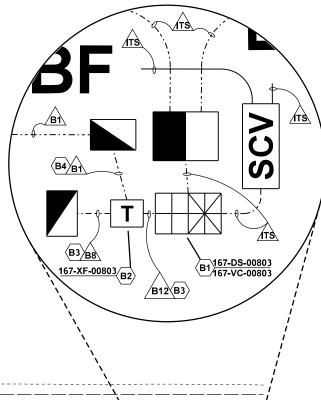
TEMPORARY ILLUMINATION PLAN

SHEET 164A OF 357 SHEETS



							00803	167XF	00759	167XF			3275	SCA			CONDUIT	
REMARKS		GRO #	UND 8	GRO #		PV #	TA	IT CKT #	MR T D	CK	MR T C	CK	ТВ	IT CK	JM. T A			$\triangle$
	X	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	RACEWAY	NO.
NOTE 1				1						2							2."	B1
				1												2	1."	B2
NOTE 1				1						2						2	2."	В3
NOTE 1				1						2						2	2."	
SPARE				1													2."	B4
SPARE				1													2."	
NOTE 1				1						2						2	2."	
SPARE				1													2."	B5
NOTE 1				1						2							2."	B6
				1												2	2."	B7
SPARE				1													2."	B8
				1										2			2."	В9
				1								2					2."	B10
NOTE 2		1				2											2."	B11
				1				2									2."	B12
JTILITY:		HE S		CTED		MSE		NLESS	ORS.	NDUCT	2 COI	(3)#	AND	NDUIT	C COI	0 PV		B12 PW

CONS	STRUCTION NOTES SHEET IL:
NO.	DESCRIPTION
B1	TERMINATE POWER CONDUIT AND CIRCUIT IN ITS CABINET.
B2	INSTALL NEW 5 KVA 480V IN / 120V OUT TRANSFORMER CABINET 167-XF-00803 ON NEW ITS CABINET PAD IN ACCORDANCE WITH STANDARD PLAN J-10.10. SEE ITS PLANS FOR ADDITIONAL CABINET PAD DETAILS. SEE STANDARD PLAN J-10.25 FOR TRANSFORMER CABINET DETAILS.
B3	TERMINATE CONDUIT IN LOAD SECTION OF TRANSFORMER CABINET.
B4	TERMINATE CONDUIT IN SUPPLY (LINE) SECTION OF TRANSFORMER CABINET.



			·····
		SR 167 SB	· \
+ + + + + + + + + + + + + + + + + + +	B5 145	r- or - o	155
		SR 167 NB C LINE	<del>\frac{\frac{1}{1}}{\frac{1}{1}} /</del>
	LEGEND	SCV BF	
NEW	NEW	<u>—                                      </u>	<u>∕B1</u> \

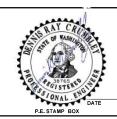
0 50 SCALE IN FEET

NEW		NEW	
$\boxtimes$	TYPE 1 JUNCTION BOX		CONDUIT AND CONDUCTORS
	TYPE 2 JUNCTION BOX		POWER UTILITY PAD TRANSFORMER
	TYPE 8 JUNCTION BOX		LIGHT STANDARD AND
РВ	PULL BOX	?	LUMINAIRE NOTE FLAG
SCV	SMALL CABLE VAULT	<u>^</u>	WIRE NOTE FLAG
CV	CABLE VAULT	$\wedge$	ITS CONDUIT AND WIRING
$\overline{\mathbb{H}}$	TYPE 33xD ITS CABINET	<u>/ITS</u>	SEE ITS PLANS FOR DETAILS
— <b>⋈</b>	ELECTRICAL SERVICE CABINET	<b>?</b>	CONSTRUCTION NOTE FLAG
	CAMERA POLE		

LIGHTING SCHEDULE									SERVICE NO. SCA 3275					
POLE DATA								LUMIN	AIRE DATA					
NUMBER CI	CIDCUIT	VOLTAGE	LOC	CATION		MAST	⊔1	BASE	FOUNDATIO	N	TYPE	WATTAGE	DISTRIBUTION	COMMENTS
NOWBER	JIKCOIT	VOLTAGE	CENTERLINE	STATION	OFFSET	ARM	111	TYPE	STANDARD PLAN & CASE	TYPE (J-28.30)	TIFE	CLASS	DISTRIBUTION	
B1	Α	240	С	150+36	50 R	16	40	SLIP	J-28.22 CASE B	В	LED	250W	III - MEDIUM - CUTOFF	
B2	Α	240	С	151+86	51 R	16	40	SLIP	J-28.22 CASE B	В	LED	250W	III - MEDIUM - CUTOFF	

TRANS	(ER SCHEDUI SFORMER ET 167-XF-00		INPU	SOURCE: CIRCUIT: T VOLTAGE:	_
CIRCUIT	DESCRIPTION / LABEL		AKER ING AMPS	VOLTAGE	LOAD (kVA)
	MAIN	2P	50A		
1	167-DS-00803	1P	40A	120	3
BU	JSSWORK SHALL E	BE RATED	)	PEAK:	4
	AT 200 AMP MIN	IMUM		CONTINUOUS:	3

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ENTERED BY	CH/FJ				ا اهد	526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY				1		XL5863
REGIONAL ADM	.I WYNANDS	REVISION	DATE	RY	1		



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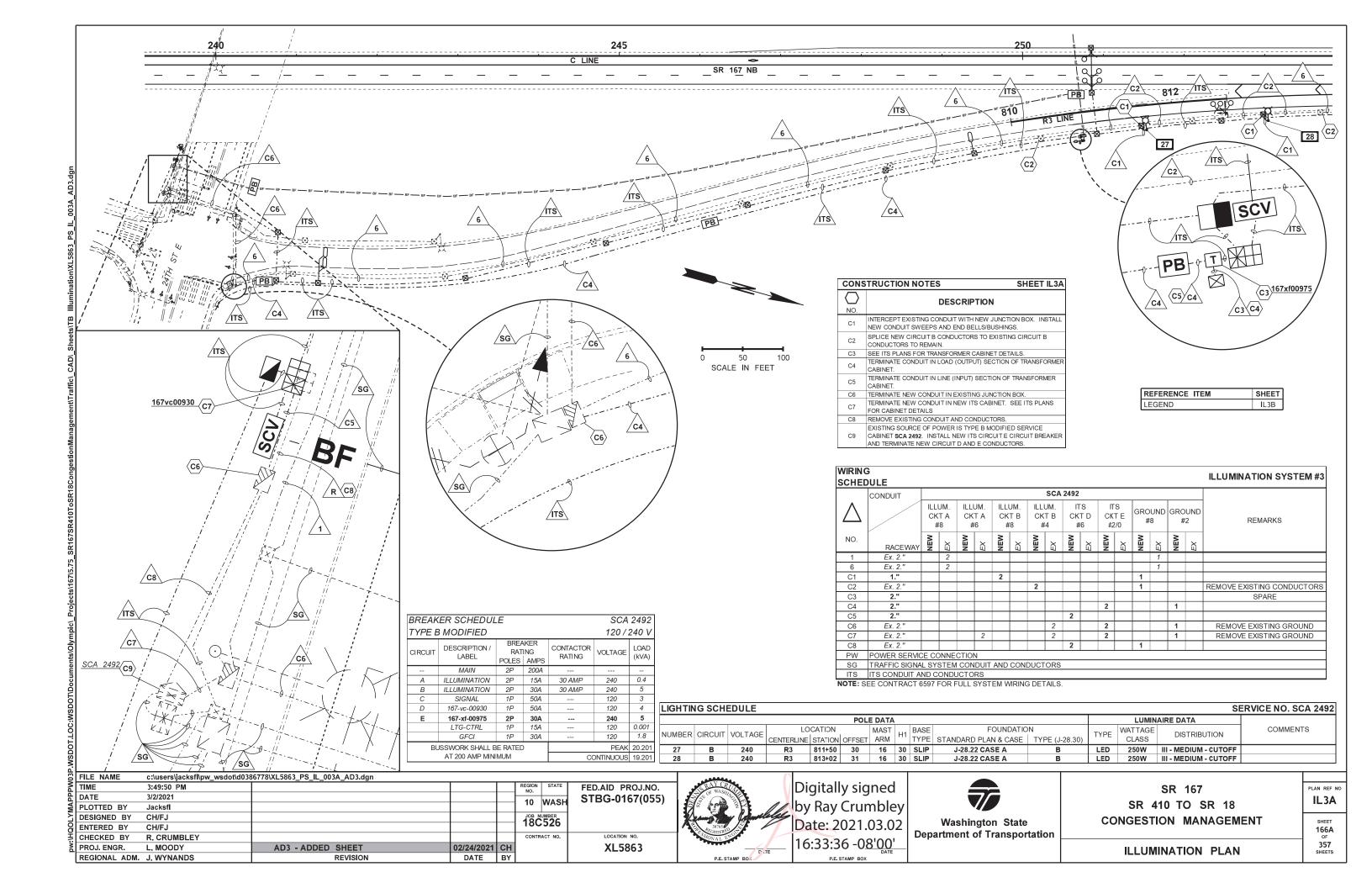
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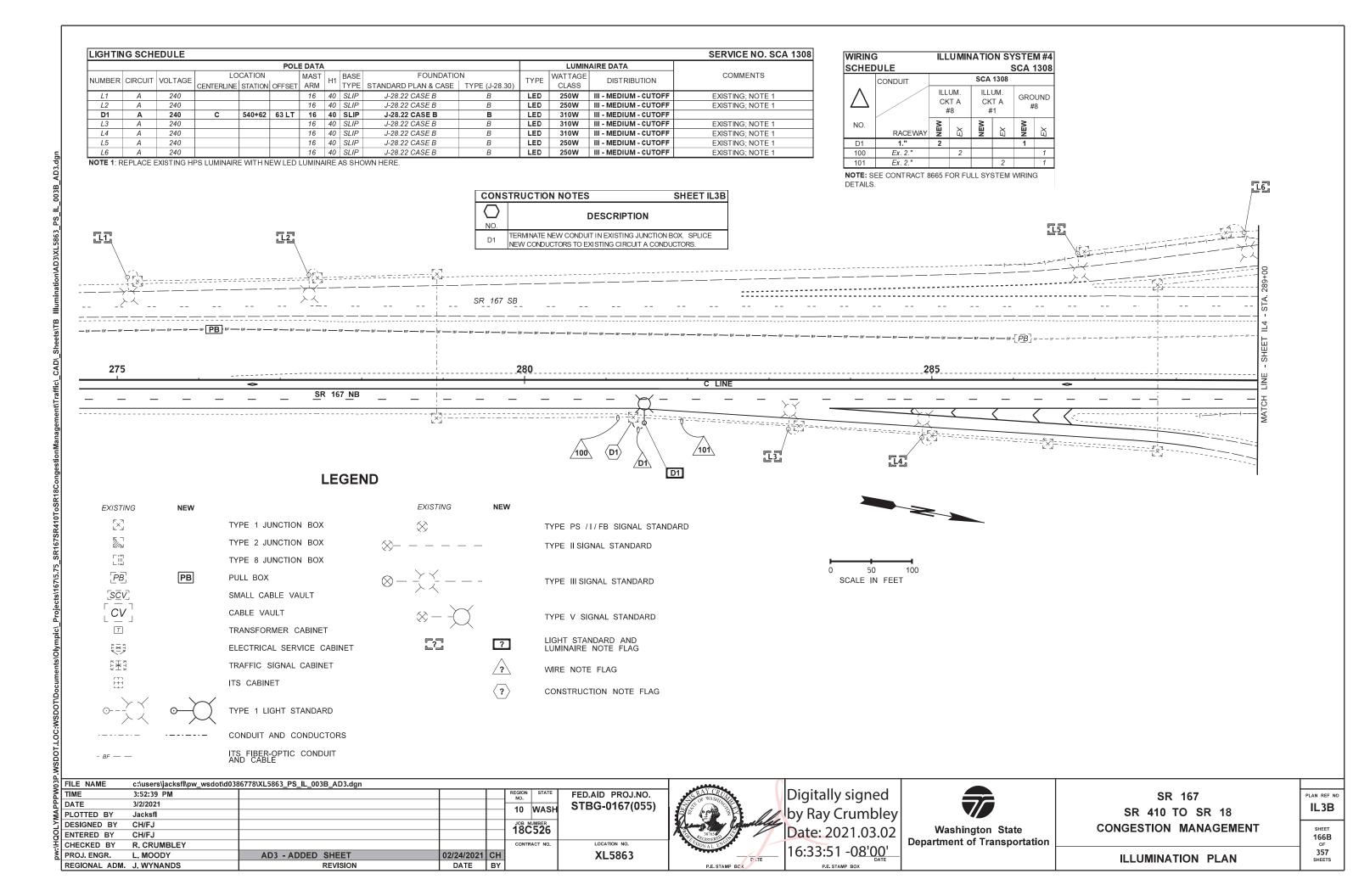


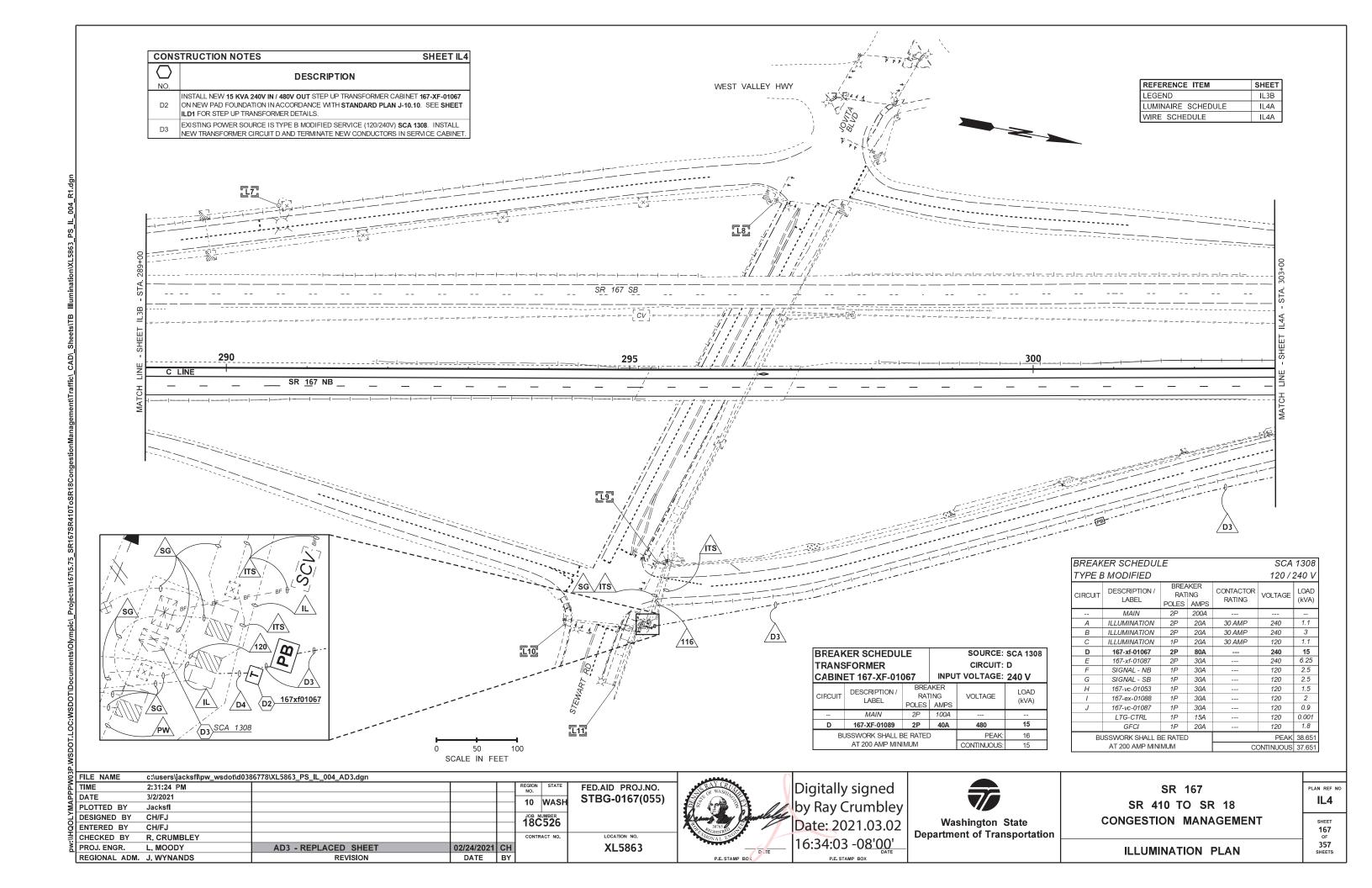
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

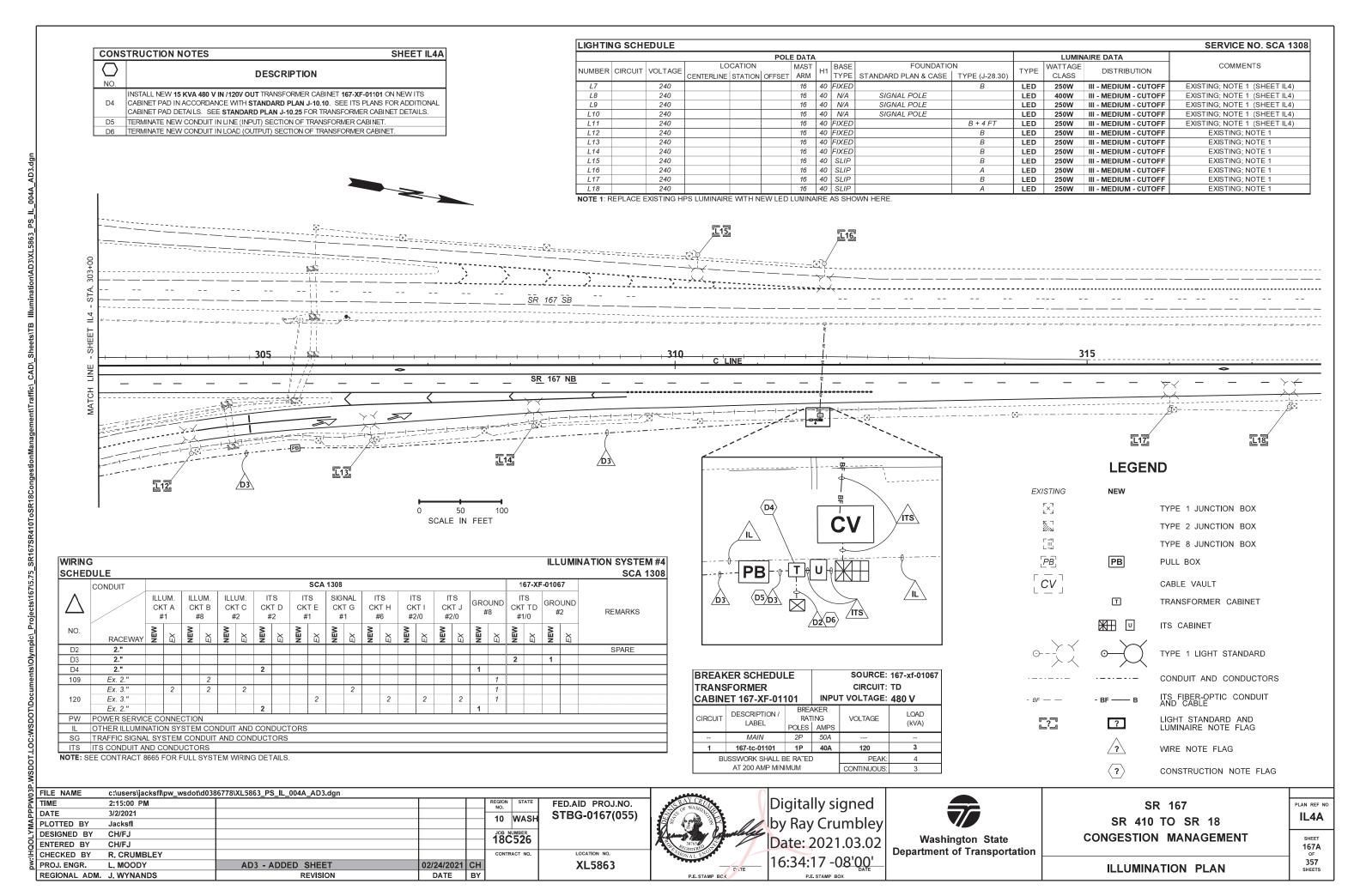
ILLUMINATION PLAN

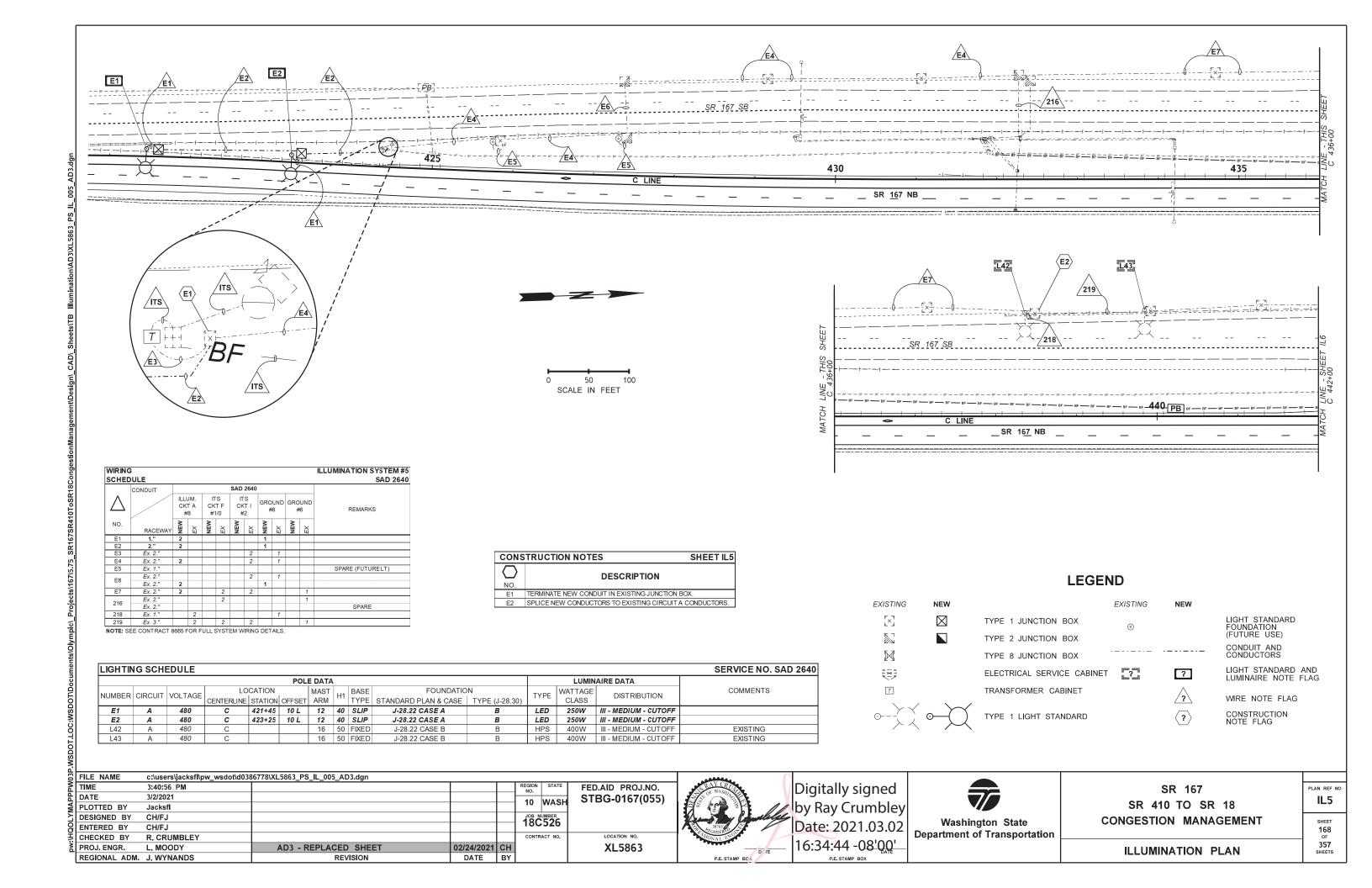
SHEET 166 OF 357 SHEETS

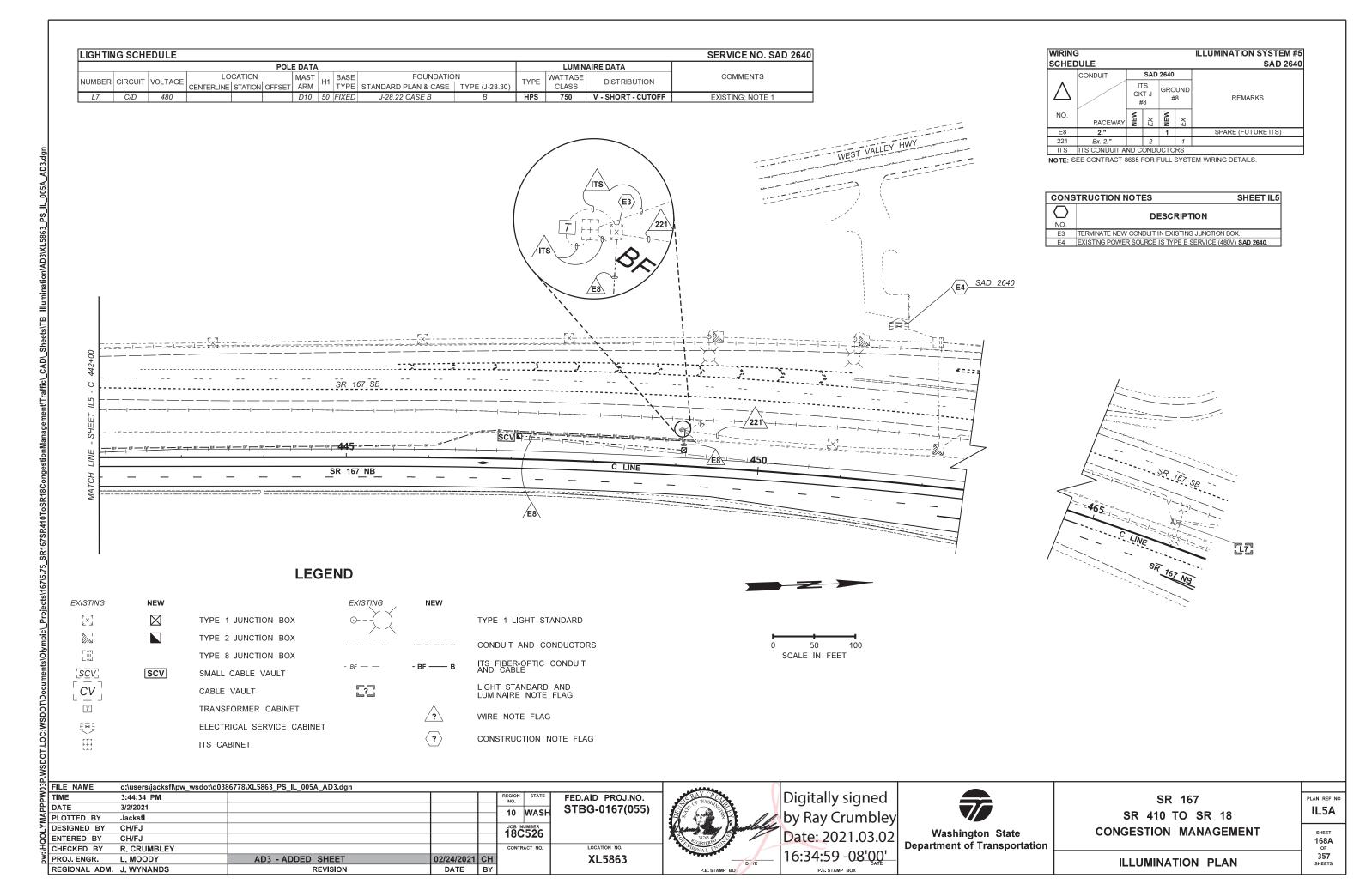


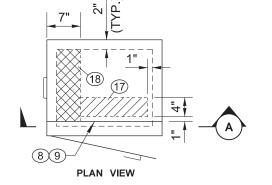






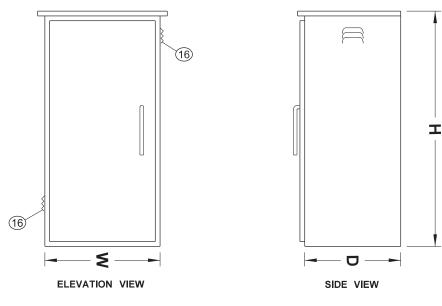




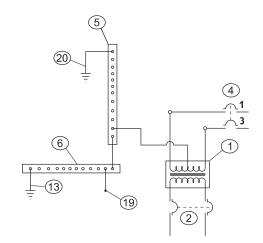


TRANSFORMER	CABINET DIMENSIONS							
SIZE (KVA)	Н	W	D	Х*				
UP TO 3	18"	18"	12"	9"				
3.1 TO 12.5	48"	24"	20"	24"				
12.6 TO 35.0	60"	32"	30"	24"				

\* X DIMENSION IS A MINIMUM

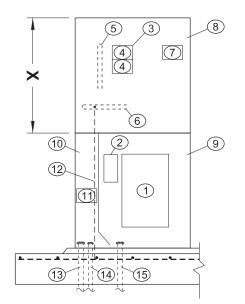


TRANSFORMER CABINET HOUSING



240V INPUT - 480V OUTPUT

WIRING SCHEMATIC



SECTION

TRANSFORMER CABINET DETAILS

- Cabinet construction shall meet the requirements of Standard Specification 9-29.25. Aluminum cabinets shall have mill finish.
- 2. Busswork shall be rated for 100 Amps minimum.
- Input voltage shall be 240VAC and output voltage shall be 480VAC. Transformer size shall be as shown in the Contract Plans. The transformer shall be specifically rated for step up
- 4. There shall be one and only one double pole secondary branch breaker. The secondary breaker panel may include additional breaker positions, but the dead front shall not provide spaces for additional breakers. See Contract Plans for secondary branch breaker information.
- Cabinet anchor bolt pattern is determined by the cabinet manufacturer. All anchor bolts shall either be hot dip galvanized or stainless steel cinch bolts. Bolts shall extend a minimum of 1.5 inches above the concrete pad.
- 6. Engraved phenolic nameplate shall be red with white text, and shall read "SUPPLIED FROM SERVICE CABINET S?? ????". See Contract Plans for service cabinet S?? number. Nameplate shall be attached with screws or rivets.
- High Voltage Wireway engraved phenolic plate shall be red with white text. This tag shall read "HIGH VOLTAGE WIREWAY 480V OUTPUT".
- 8. Cabinet shall be oriented such that it opens away from traffic.
- 9. External cabinet label (stencil) shall be red instead of black.

### **KEY**

- (1) TRANSFORMER
- 2 MAIN INPUT BREAKER ~ DPST
- 3 SECONDARY BREAKER PANEL - TWO POSITION MINIMUM
- (4) DPST SECONDARY BREAKER (USES TWO SLOTS)
- (5) ISOLATED NEUTRAL BUSS ~ 12 LUG TINNED COPPER
- (6) GROUND BUSS ~ 12 LUG TINNED COPPER
- 7 ENGRAVED PHENOLIC LABEL PLATE (SEE NOTE 6)
- UPPER SECTION HINGED DEAD FRONT  $\sim$  ONLY ONE SECONDARY BREAKER ACCESSIBLE WHEN CLOSED 8
- LOWER SECTION HINGED DEAD FRONT  $\sim$  ONLY MAIN BREAKER ACCESSIBLE WHEN CLOSED 9
- (10) ENCLOSED HIGH VOLTAGE WIREWAY
- HIGH VOLTAGE WIREWAY ENGRAVED PHENOLIC LABEL PLATE (SEE NOTE 7) (11)
- SUPPLEMENTAL GROUND ~ CONNECT GROUND BUSS TO PAD FOUNDATION REBAR  $\,$ (12)
- 13 HIGH VOLTAGE POWER CONDUIT TO LOAD
- GROUND ELECTRODE CONDUIT  $\sim$  SEE STANDARD PLAN J-60.05, SHEET 3 (SUPPLEMENTAL GROUND) 14)
- (15) LOW VOLTAGE INPUT POWER CONDUIT
- (16) SCREENED VENT LOUVERS ~ 2 REQUIRED (1 EACH SIDE)
- (17) LOW VOLTAGE INPUT CONDUIT RESERVE AREA
- (18) HIGH VOLTAGE AND GROUND CONDUIT RESERVE AREA
- 19 CABINET BONDING JUMPER AND LUG
- (20) GROUND ELECTRODE ~ SEE STANDARD PLAN J-60.05, SHEET 3

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ENTERED BY	F. JACKSON				100	326	
CHECKED BY	R. CRUMBLEY				CONTRAC	CT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY	AD3 - REVISED SHEET NUMBER	02/24/2021	СН	1		XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY	]		



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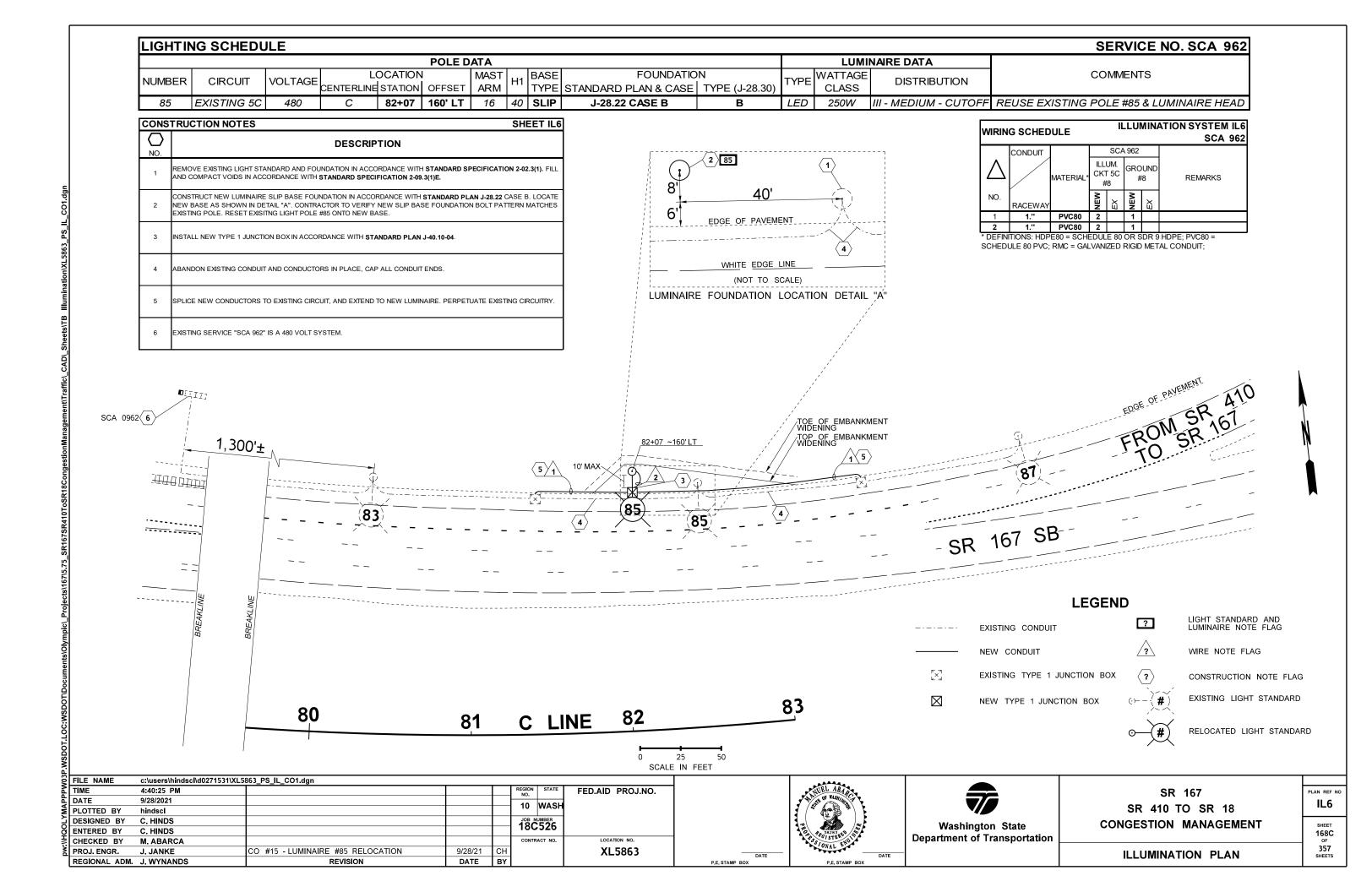


SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

STEP UP TRANSFORMER DETAIL



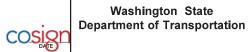
PLAN REF N ILD1



### GENERAL NOTES FOR ITS SYSTEMS ITS LEGEND **EXISTING** NEW **EXISTING NEW** JUNCTION BOX LOCATIONS SHOWN ARE APPROXIMATE. LOCATIONS SHALL BE FIELD VERIFIED AND APPROVED BY THE ENGINEER PRIOR TO PLACING EQUIPMENT OR FOUNDATIONS. TYPE 1 JUNCTION BOX 2. SYMBOLS / CELLS ARE NOT PROPORTIONAL AND ARE LARGER THAN THE ACTUAL ITEM DEPICTED. TRAFFIC SIGNAL CONTROLLER TYPE 2 JUNCTION BOX 3. CABINETS SHALL BE LABELED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, THE CABINET (TYPE 333SD) SPECIAL PROVISIONS, CABINET PAD FOUNDATION LIMITS (AROUND CABINETS ONLY) TYPE 4 JUNCTION BOX -----4. PLASTIC JUNCTION BOX MARKINGS SHALL BE INSTALLED AT EACH JUNCTION BOX, PULL BOX, AND CABLE VAULT LOCATION IN ACCORDANCE WITH STANDARD PLAN M-24.60. TYPE 8 JUNCTION BOX 5. PROPER LOCKOUT / TAGOUT PROCEDURES SHALL BE FOLLOWED. -(P)POWER UTILITY POLE S S ELECTRICAL SERVICE CABINET ORANGE FLEXIBLE GUIDEPOSTS MARKING UNDERGROUND FIBER OPTIC CABLE RUNS SHALL BE CCTV CAMERA POLE ŵ Θ INSTALLED AS SHOWN IN THE PLANS. SEE DETAIL SHEET ITD14 FOR LABEL. R R SIGNAL CONTROL CABINET LIGHT STANDARD AND LUMINAIRE T! Т TRANSFORMER (5) $\otimes$ FB & RM POLE FLEXIBLE POST FIBER OPTIC CABLE MARKER ITS CABINET SINGLE POST SIGN D D d DATA STATION / RAMP METER CABINET G G **GENERATOR** (#) POLE STANDARD NUMBER U U UNINTERUPTIBLE POWER SUPPLY CONDUIT AND WIRING \_..\_\_ M M METER PEDESTAL FIBER OPTIC - BF — -- BF BF ---- BF [CH]CH COMMUNICATION HUB **GUARDRAIL** -1- -1- -1- -1- --x- -x- -x- -x- -FENCE [TC]TC TERMINAL CABINET CATCH BASIN $\lceil \overline{CV} \rceil$ CV CABLE VAULT ------CULVERT SCV SCV SMALL CABLE VAULT $\longrightarrow$ DITCH LINE [PB]PB PULL BOX PP UNDER GROUND POWER VAULT CCTV CAMERA AND POLE **√**₩>-METER PEDESTAL UNDERGROUND POWER UTILITY LINE BP — — TYPE RM SIGNAL STANDARD UNDERGROUND GAS LINE TYPE FB SIGNAL STANDARD WATER LINE - U1 — — MUTLIPLE UTILITIES SEE UTILITY PLANS (SU SHEETS) d'd'b 900 TYPE 3 INDUCTION LOOPS - U2 — — WAVETRONIX DETECTION ZONE - U3 — — 0 NEW SIGN (# VARIABLE MESSAGE SIGN CABINET $\langle \# \rangle$ CONSTRUCTION NOTE VARIABLE MESSAGE SIGN OVERHEAD i \_ \_ \_ vms \_ \_ i \_ vms WIRE NOTE HIGHWAY ADVISORY RADIO CABINET # LIGHT STANDARD NUMBER PULL BOX NUMBER [HAR] EXPB-## PB-## HIGHWAY ADVISORY RADIO SIGN CABLE VAULT EXCV-## CV-## SMALL CABLE VAULT EXSCV-## SCV-## c:\users\glangh\pw\_wsdot\d0271536\XL5863\_PS\_ITS\_LEGEND.dgn FILE NAME 11:17:10 PM FED.AID PROJ.NO. PLAN REF N SR 167 1/18/2021 Jan 19 2021 7:41 AM ITSN1 10 WASH SR 410 TO SR 18 giangh

TIME DATE PLOTTED BY DESIGNED BY H. GIANG 18C526 ENTERED BY H. GIANG CHECKED BY R. CRUMBLEY CONTRACT NO. LOCATION NO. PROJ. ENGR. XL5863 L. MOODY DATE BY REGIONAL ADM. J. WYNANDS REVISION

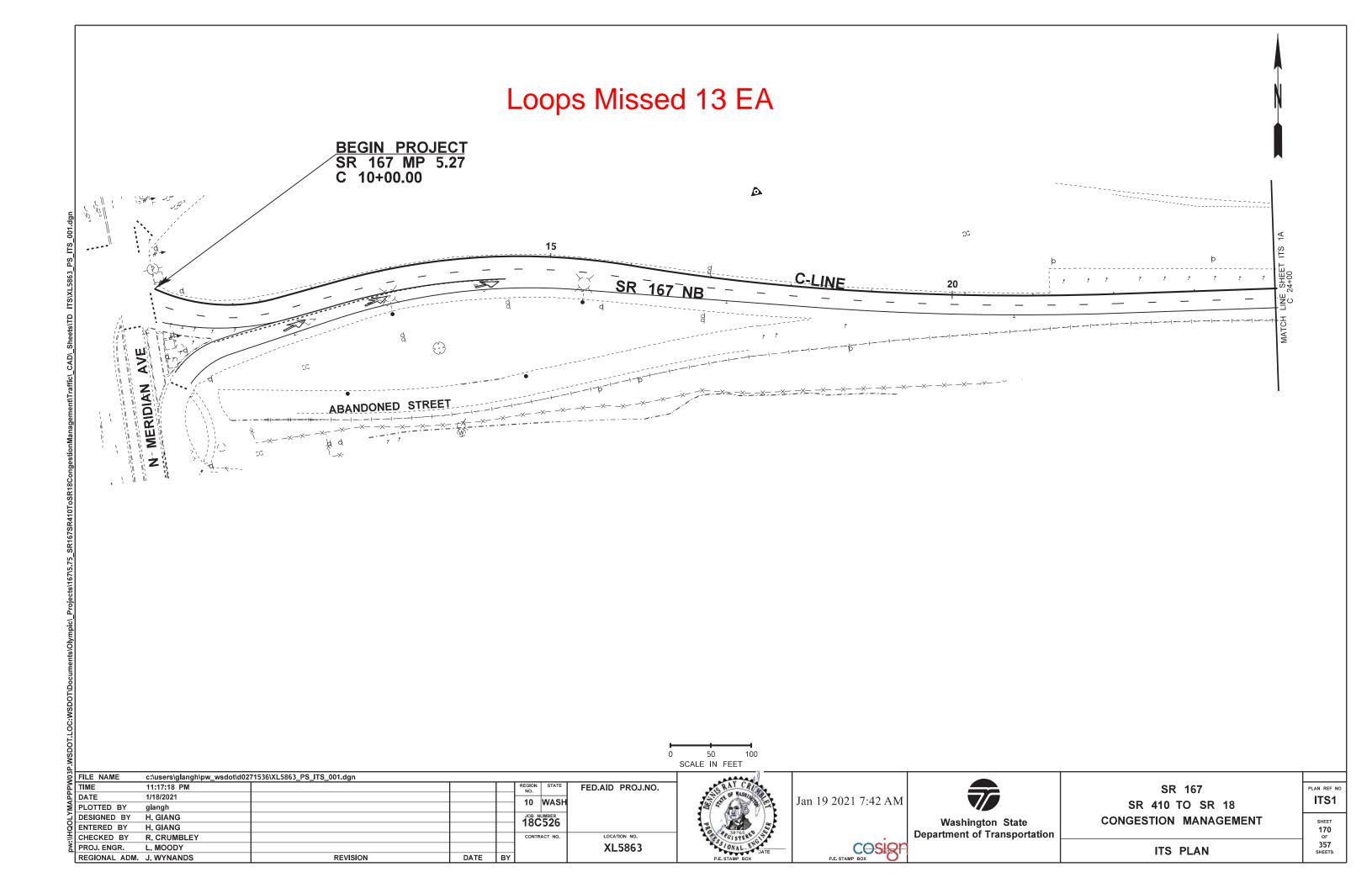


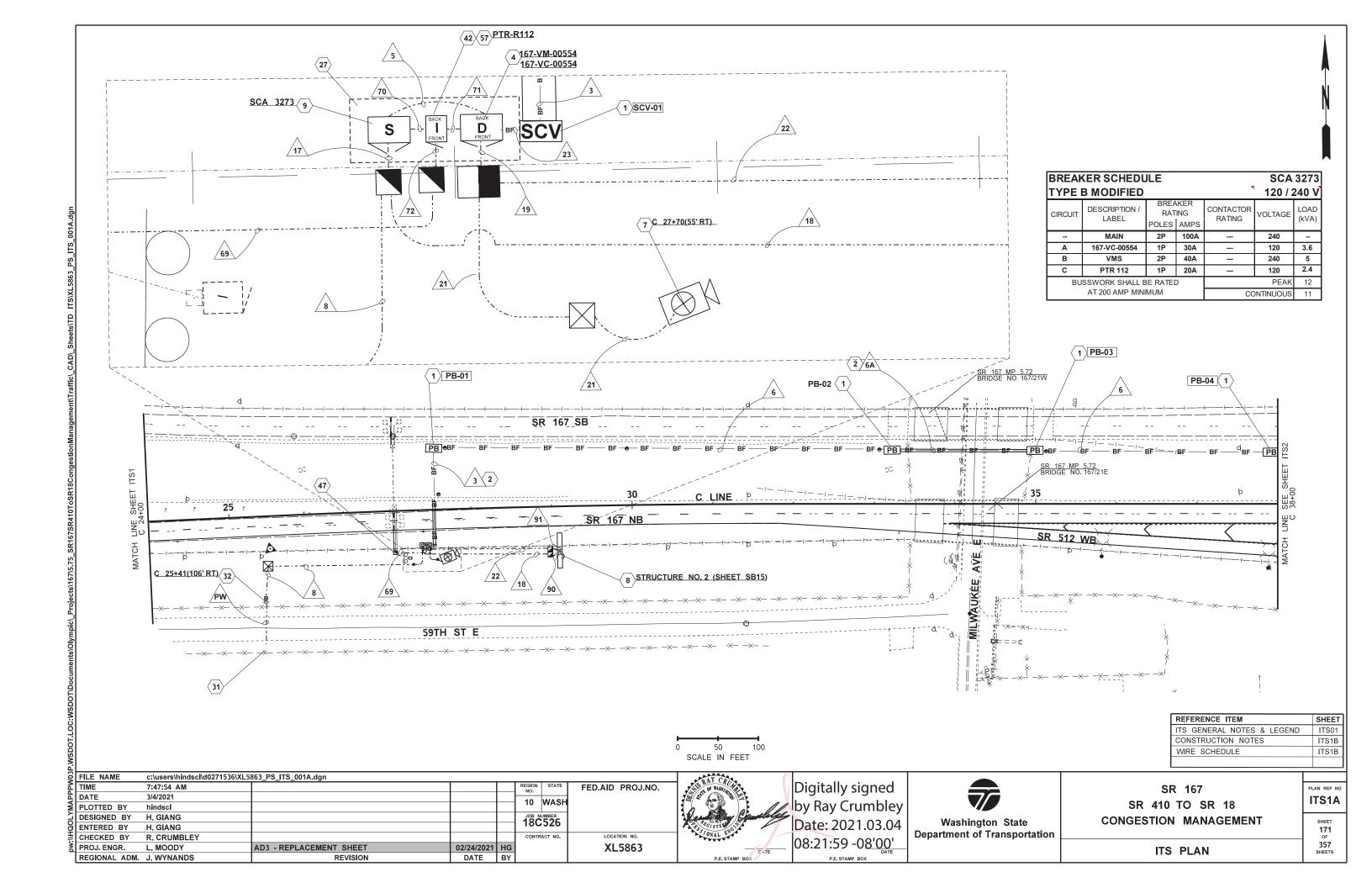


**CONGESTION MANAGEMENT** 

ITS LEGEND

169 357





	DESCRIPTION
<b>NO. ▼</b>	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
4	INSTALL A 334D ITS CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .
8	FURNISH AND INSTALL CANTILEVER MONOTUBE T STRUCTURE FOUNDATION IN ACCORDANCE WITH SIGN BRIDGE SHEETS SB15-SB22, FURNISH AND INSTALL NEW WALK-IN VARIABLE MESSAGE SIGN (VMS) AS IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS, STANDARD PLAN G-95.20, AND SEE SHEET ITD2-ITD3 FOR ADDITIONAL DETAILS.
9	INSTALL NEW STRUT MOUNT TYPE B MODIFIED SERVICE CABINET <b>SCA 3273</b> IN ACCORDANCE WITH <b>STANDARD PLAN J. 10.20</b> AND BREAKER SCHEDULE <b>SHEET ITS3</b> .
27	REMOVE PAVEMENT AND CONSTRUCT A THREE CABINET FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-10.10</b> . SEE SHEET SP1 AND PV1 FOR GUARDRAIL AND PAVEMENT REMOVAL.
31	SOURCE OF POWER IS AN EXISTING PSE POWER POLE. COORDINATE WITH SERVING UTILITY THROUGH THE PROJECT ENGINEER FOR NEW SERVICE CONNECTION AND REQUIREMENTS.
32	INSTALL (30) FT TIMBER POLE (CLASS 5). INSTALL METER BASE, CONDUIT, CONDUCTORS, RISER, WEATHERHEAD, AND STRIKE POINT FOR AERIAL SERVICE CONNECTION. COIL 10 FEET CONDUCTORS ON THE POLE FOR UTILITY CONNECTION. AERIAL CONDUCTORS TO BE SUPPLIED BY SERVING UTILITY. COORDINATE SERVICE CONNECTION WITH SERVING UTILITY IN ACCORDANCE WITH SERVING UTILITY REQUIREMENTS.
42	COIL 10' LOOP AND PIEZO CABLES INSIDE PTR CABINET. CABLES TERMINATIONS WILL BE DONE BY OTHER.
47	REPLACE EXISTING TYPE 1 JUNCTION BOX WITH NEW TYPE 2 JUNCTION BOX. SPLICE AND EXTEND EXISTING LOOP AND PIEZO CABLES TO NEW PTR CABINET.
57	INSTALL A 331 ITS CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.

Λ	CONDUIT			
NO.		MATERIAL*	NEW CABLE	REMARKS
	RACEWAY			
3	2.''	HDPE80	1-12 SMFO	DISTRIBUTION FIBER
3	2.''	HDPE80		SPARE W/PULL TAPE
5	2."	PVC80	2-#8	POWER FROM TRANSFORMER TO CABINE
6	2."	PVC80	1-12 SMFO	DISTRIBUTION FIBER
6A	2."	HDPE80	1-12 SMFO	DISTRIBUTION FIBER
бА	2."	HDPE80		SPARE W/PULL TAPE
8	2."	PVC80	3-#2	POWER FROM METER TO SERVICE CABINE
47	2."	PVC80	3-#8	240V- POWER VMS
17	2."	PVC80		SPARE W/PULL TAPE
18	2."	PVC80	3-#8	240V- POWER VMS
	2."	PVC80	1-CAT 6	CCTV CABLE
40	2."	PVC80	1-VMS CABLE	VMS NETWORK CABLE
19	3."	PVC80		SPARE W/PULL TAPE
	3."	PVC80		SPARE W/PULL TAPE
21	2."	PVC80	1-CAT 6	CCTV CABLE
22	2."	PVC80	1-VMS CABLE	VMS NETWORK CABLE
	2."	PVC80	2-12 SMFO	PRE-TERMINATED SMFO CABLE
23	2."	PVC80		SPARE W/PULL TAPE
-00	2."	PVC80	6-2CS CABLE	SB VEHICLE DETECTION & PIEZO CABLES
69	2."	PVC80	6-2CS CABLE	NB VEHICLE DETECTION & PIEZO CABLES
70	2."	PVC80	2-#8	POWER PTR CABINET
71	2."	PVC80	1-CAT 6	COMM BETWEEN TWO CABINETS
	2."	PVC80	6-2CS CABLE	SB VEHICLE DETECTION & PIEZO CABLES
72	2."	PVC80	6-2CS CABLE	NB VEHICLE DETECTION & PIEZO CABLES
	3."	PVC80		SPARE W/PULL TAPE
90	1.25''	PVC80	3-#8	240V - POWER VMS
91	1.25''	PVC80	1-VMS CABLE	VMS NETWORK CABLE
PW	POWER SE			ALL THE FOLLOWING UNLESS OTHERWISE HE SERVING UTILITY:
r~ v v	i	D	ILECTED BY I	HE SERVING UTILITY.

<sup>\*</sup> DEFINITIONS: HDPE80 = SCHEDULE 80 OR SDR 9 HDPE; PVC80 = SCHEDULE 80 PVC; RMC = GALVANIZED RIGID METAL CONDUIT; INNERDUCT SHALL BE SCHEDULE 40 PVC OR HDPE.

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DATE	3/4/2021					WASH				
PLOTTED BY	hindscl				10	WASH				
DESIGNED BY	H. GIANG				JOB 1	NUMBER				
ENTERED BY	H. GIANG				100	526				
CHECKED BY	R. CRUMBLEY				CONTI	RACT NO.	LOCATION NO.			
PROJ. ENGR.	L. MOODY	AD3 - CONSTRUCTION & WIRE NOTES REVISION	02/24/2021	HG			XL5863			
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY						



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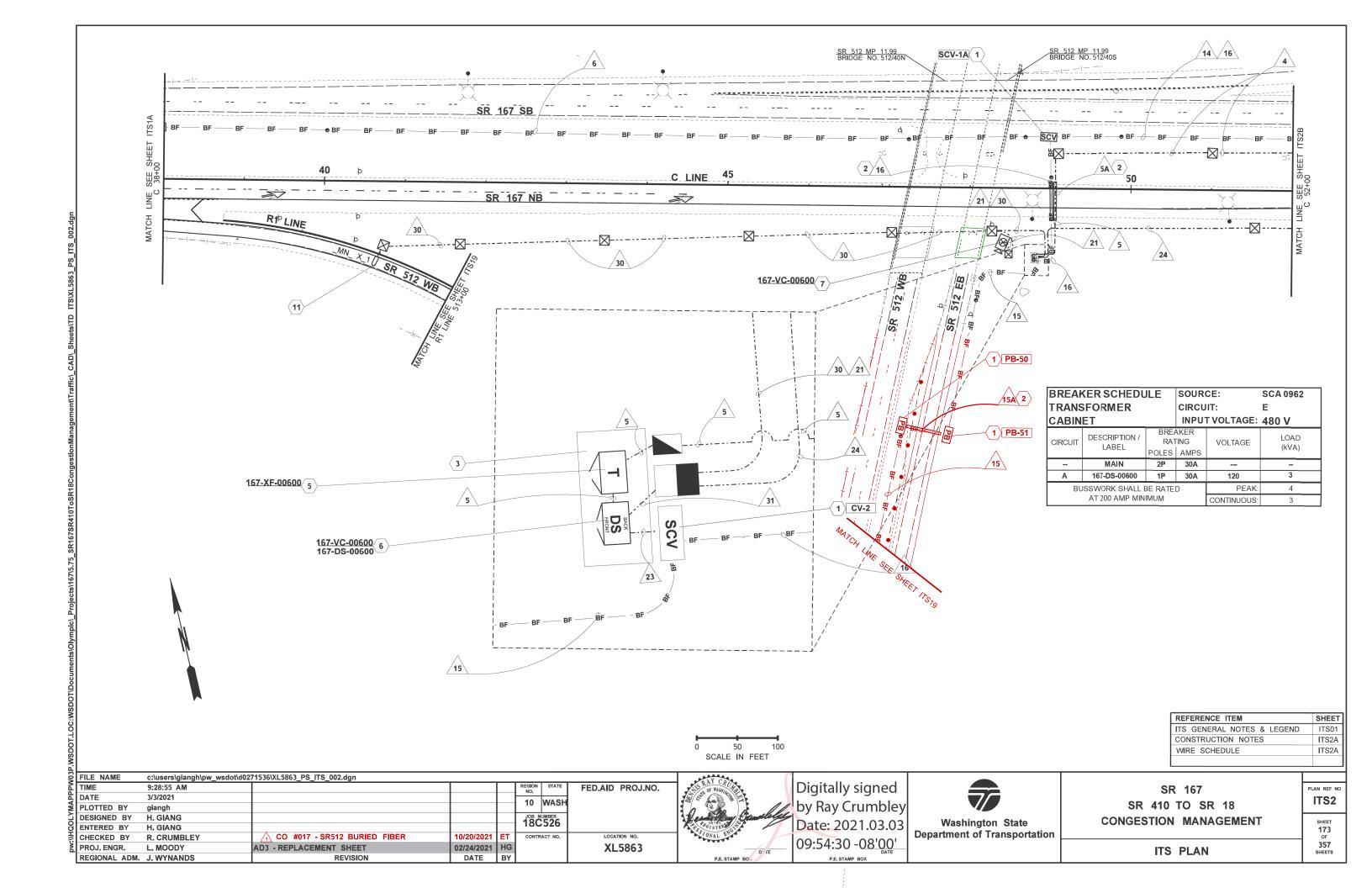


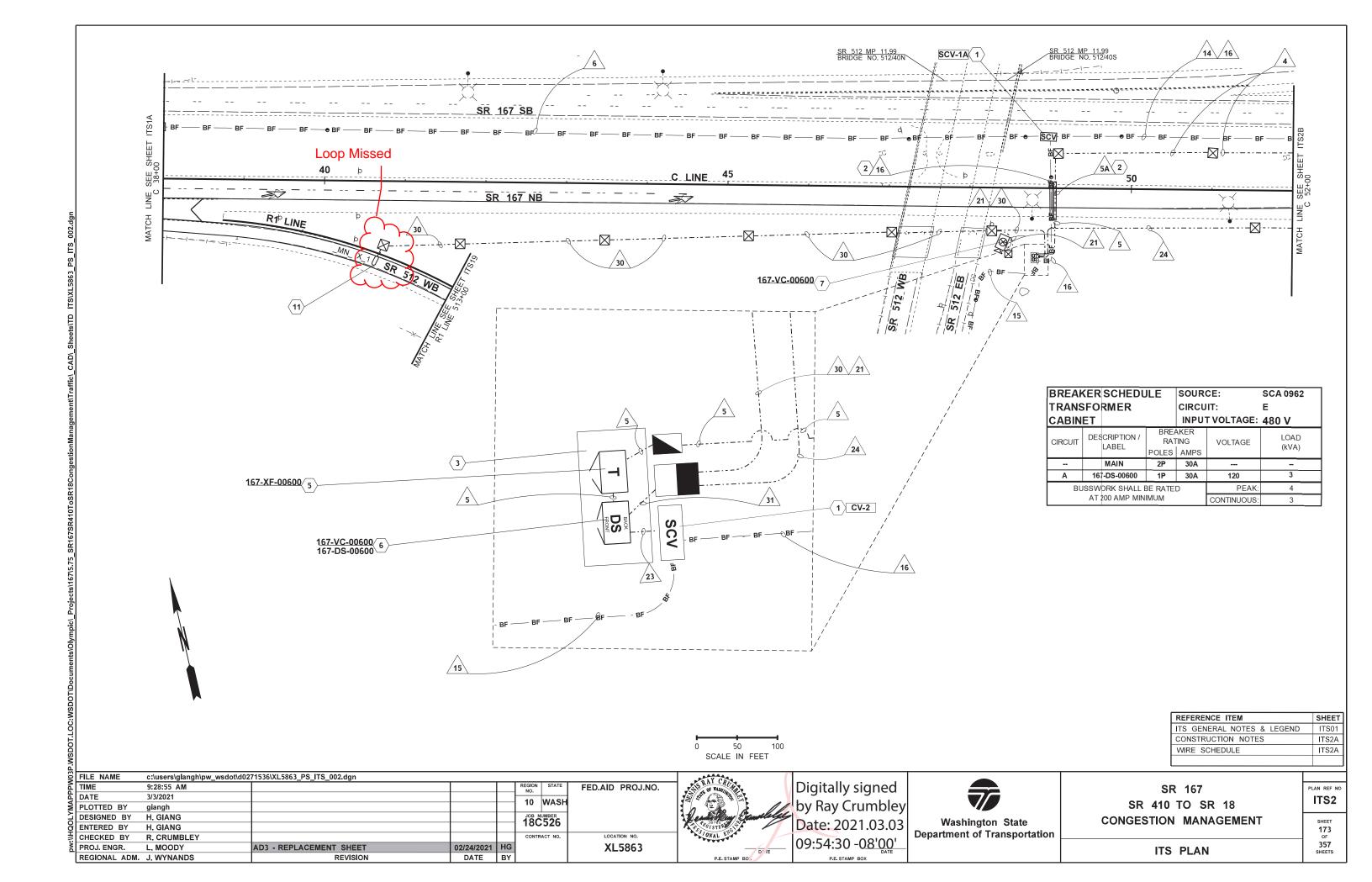
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT Washington State
Department of Transportation

ITS1B

ITS PLAN

172 OF 357 SHEETS





CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINETS FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
5	INSTALL A CABINET WITH A 3 KVA 480/120 VAC TRANSFORMER IN ACCORDANCE WITH STANDARD PLAN J-10.10 AND J-10.25 AND PER TRANSFORMER BREAKER DETAILS <b>ON SHEET ITS2</b> .
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL <b>SHEET ITD1</b> .
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .
11	INSTALL TYPE WR INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF THE LANE IN ACCORDANCE WITH <b>STANDARD PLAN J-50.12</b> AND PER DETAILS ON <b>SHEET ITD5</b> .

WIRIN	G SCHEDUL	E										
No.	CONDUIT	MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS						
4	2."	PVC80			3-#2	POWER FROM SERVICE TO TRANSFORMER						
-	2."	PVC80			3-#2	POWER FROM TRANSFORMER TO CABINET						
5	3."	PVC80				SPARE W/PULL TAPE						
5A	2."	HDPE80			3-#2	POWER FROM TRANSFORMER TO CABINET						
ЭА	3."	HDPE80				SPARE W/PULL TAPE						
6	2."	PVC80			1-12 SMFO	DISTRIBUTION FIBER (SR 167 SB)						
			Α			SPARE W/PULL TAPE						
44	4" w/ (4) 1"	D) (O) O	В			SPARE W/PULL TAPE						
14	INNERDUCT	PVC80	С			SPARE W/PULL TAPE						
			D			SPARE W/PULL TAPE						
			Α		1-12 SMFO	DISTRIBUTION FIBER (SR512)						
4=	4" w/ (4) 1"	D) (0.00	В			SPARE W/PULL TAPE						
15	INNERDUCT	PVC80	С			SPARE W/PULL TAPE						
			D			SPARE W/PULL TAPE						
			Α		1-12 SMFO	DISTRIBUTION FIBER (SR512)						
	4" w/ (4) 1"	4" w/ (4) 1"	4" w/ (4) 1"	4" w/ (4) 1"	D) (0.00	В		1-12 SMFO	DISTRIBUTION FIBER (SR167 SB)			
16	INNERDUCT	PVC80	PVC80	С			SPARE W/PULL TAPE					
			D			SPARE W/PULL TAPE						
21	2."	PVC80			1-CAT 6	CCTV CABLE						
	2."	PVC80	1		2-12 SMFO	PRE-TERMINATED SMFO CABLE						
23	3."	PVC80				SPARE W/PULL TAPE						
24	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE						
30	2."	PVC80			1-2CS CABLE	VEHICLE DETECTION CABLE						
	2."	PVC80			1-CAT 6	CCTV CABLE						
0.4	2."	PVC80			7-2CS CABLE	VEHICLE DETECTION CABLE						
31	3."	PVC80				SPARE W/PULL TAPE						
	3." PVC80					SPARE W/PULL TAPE						
			А		1-12 SMFO	DISTRIBUTION FIBER (SR512)						
454	4" W/ (4) 1"	LIDDEGG	В			SPARE W/PULL TAPE						
15A	INNERDUCT	HDPE80	С			SPARE W/PULL TAPE						
			D			SPARE W/PULL TAPE						

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DATE	3/3/2021					WASH		13			
PLOTTED BY	giangh				ال	WASH		В			
DESIGNED BY	H. GIANG				JOB N	UMBER 2526		13			
ENTERED BY	H. GIANG				100	,520		1			
CHECKED BY	R. CRUMBLEY	1 CO #017 - SR512 BURIED FIBER	10/20/2021	ET	CONTRACT NO.		LOCATION NO.	7			
PROJ. ENGR.	L. MOODY	AD3 - REPLACEMENT SHEET	02/24/2021	HG			XL5863	1			
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY							



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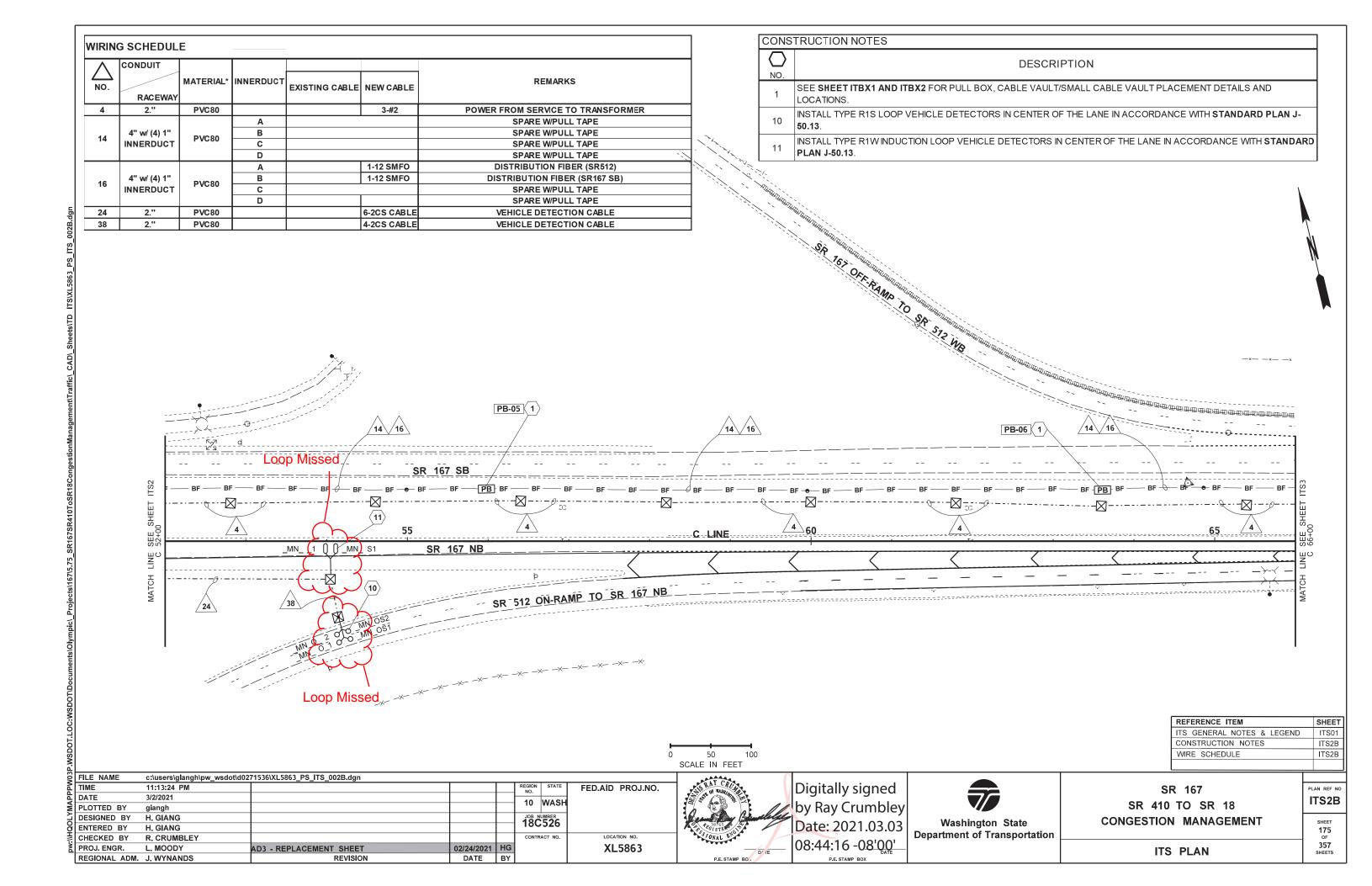
Washington State
Department of Transportation

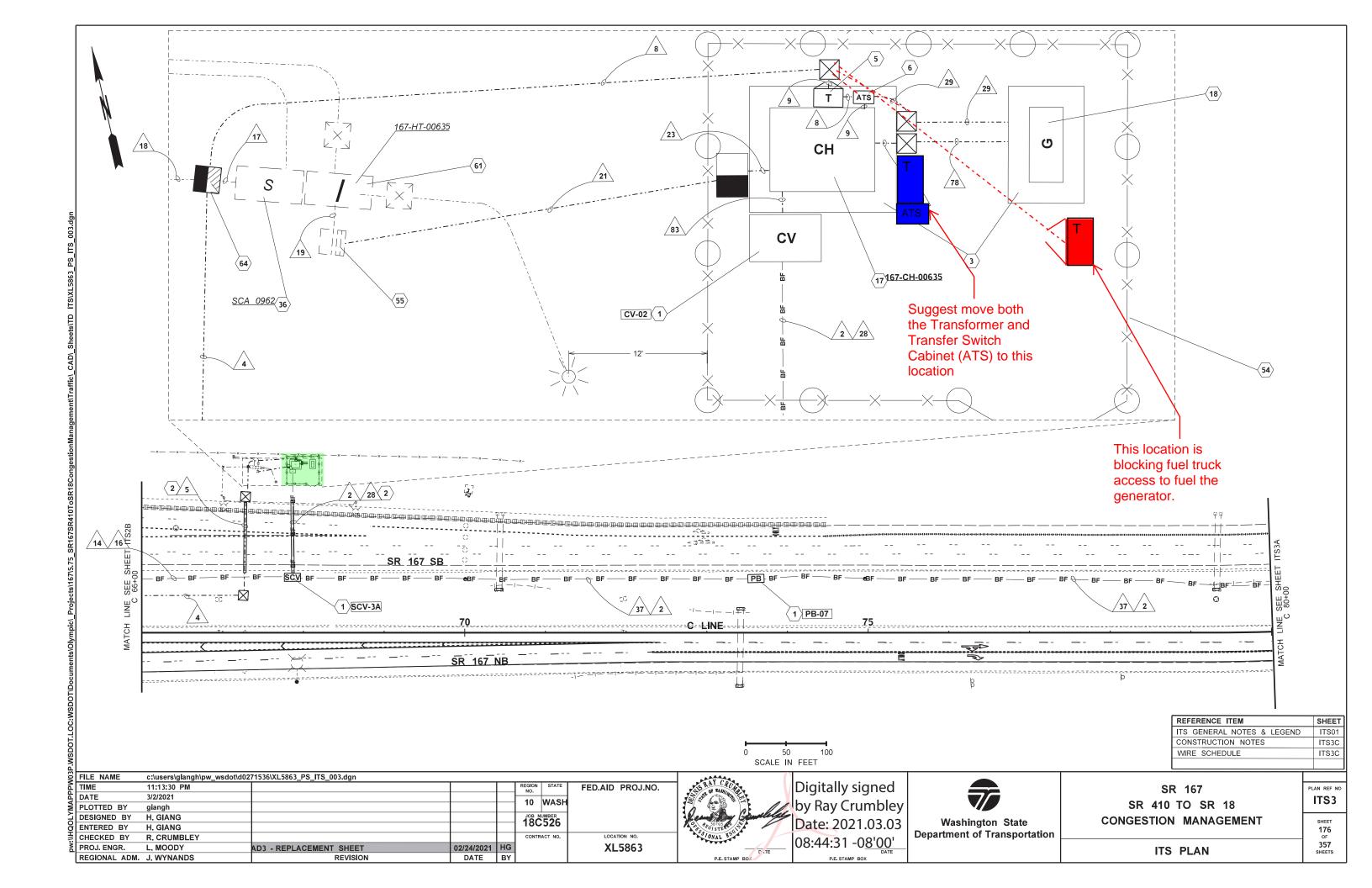
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

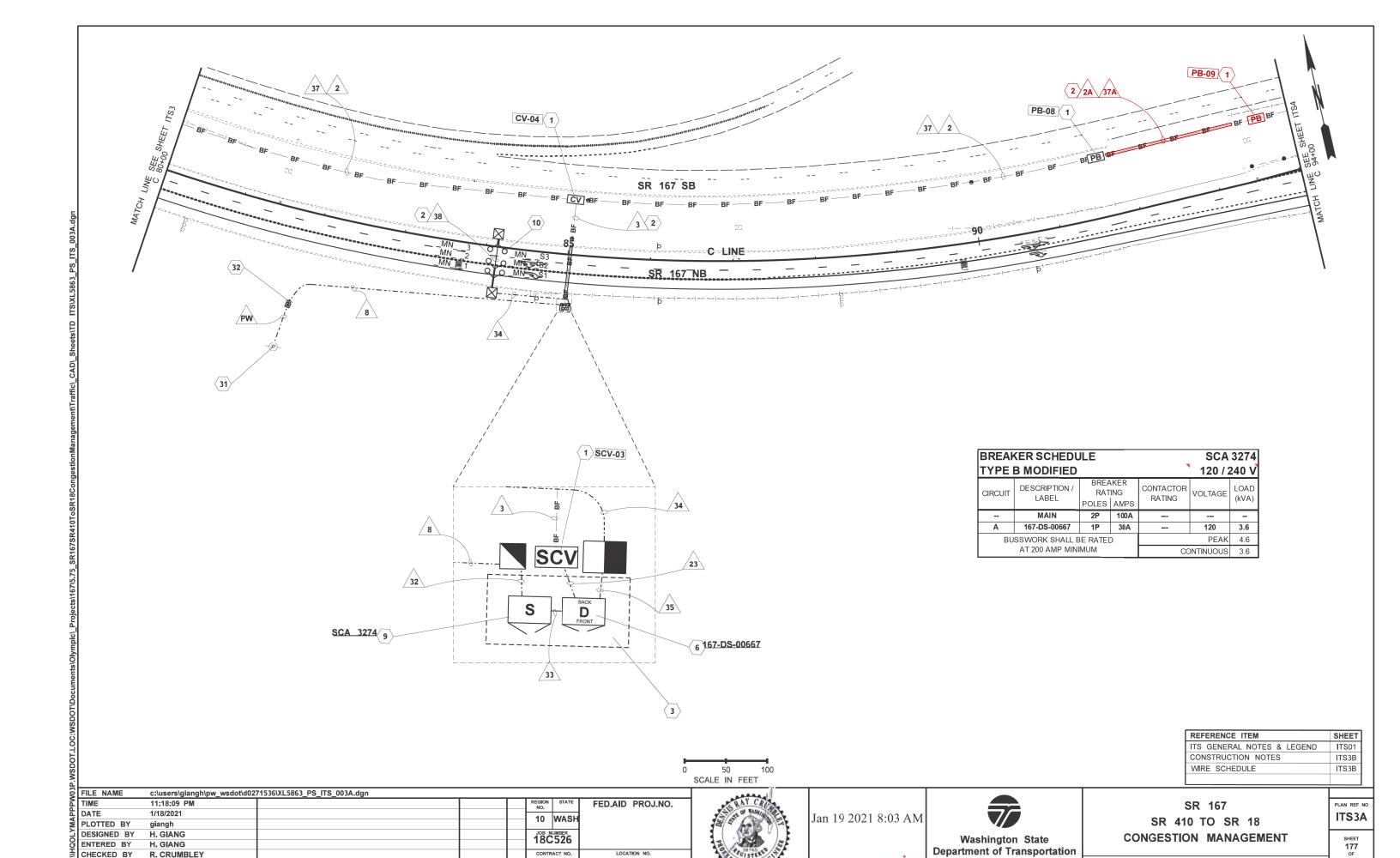
ITS PLAN

ITS2A

174 0F 357 SHEETS







LOCATION NO.

XL5863

P.E. STAMP BOX

357 SHEETS

ITS PLAN

CHECKED BY

PROJ. ENGR.

R. CRUMBLEY

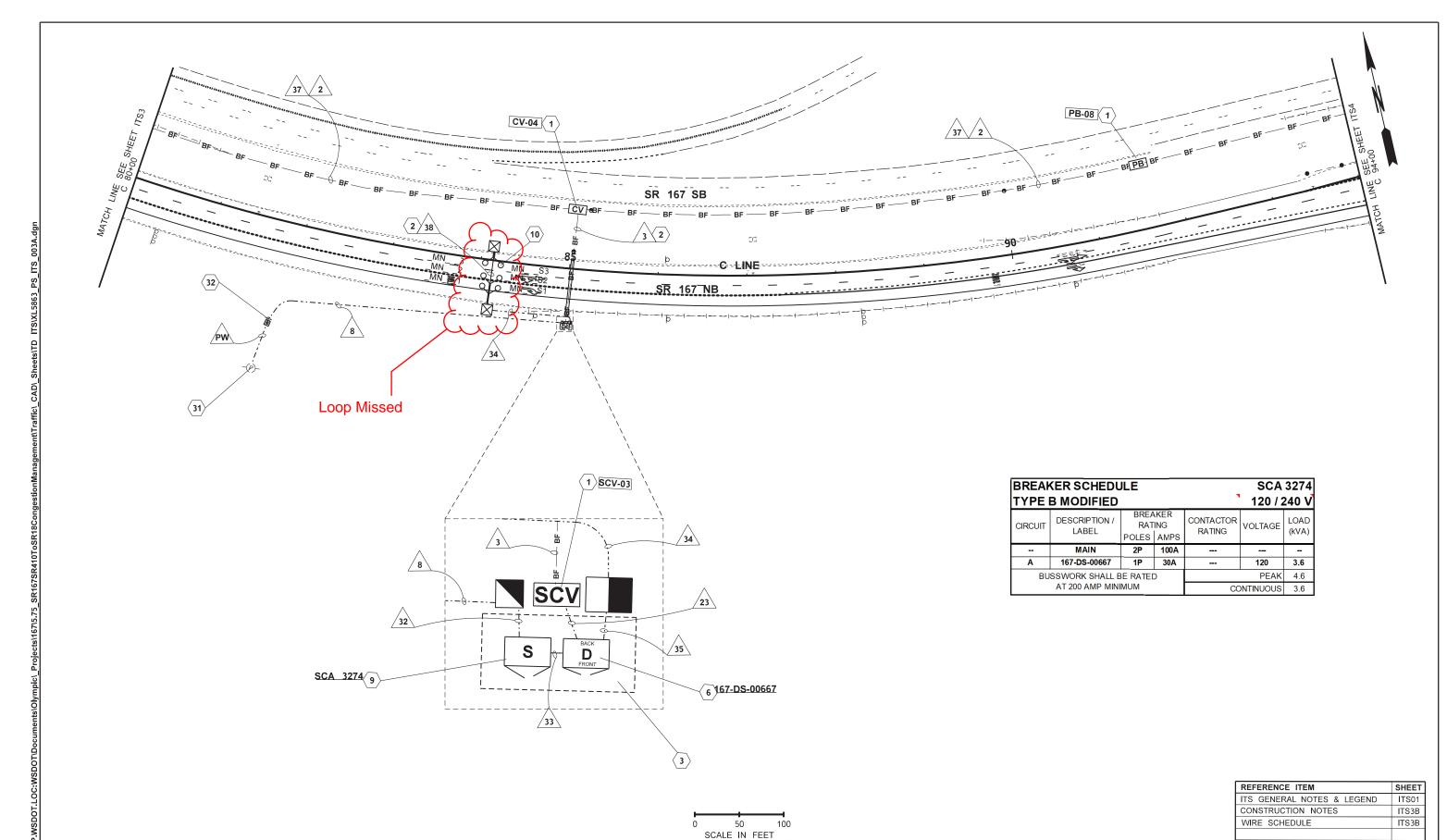
L. MOODY

REGIONAL ADM. J. WYNANDS

CO #05 - CONDUIT DIRECTIONAL BORING

11/30/2021

DATE



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Ļ	DATE	1/18/2021					WASH					
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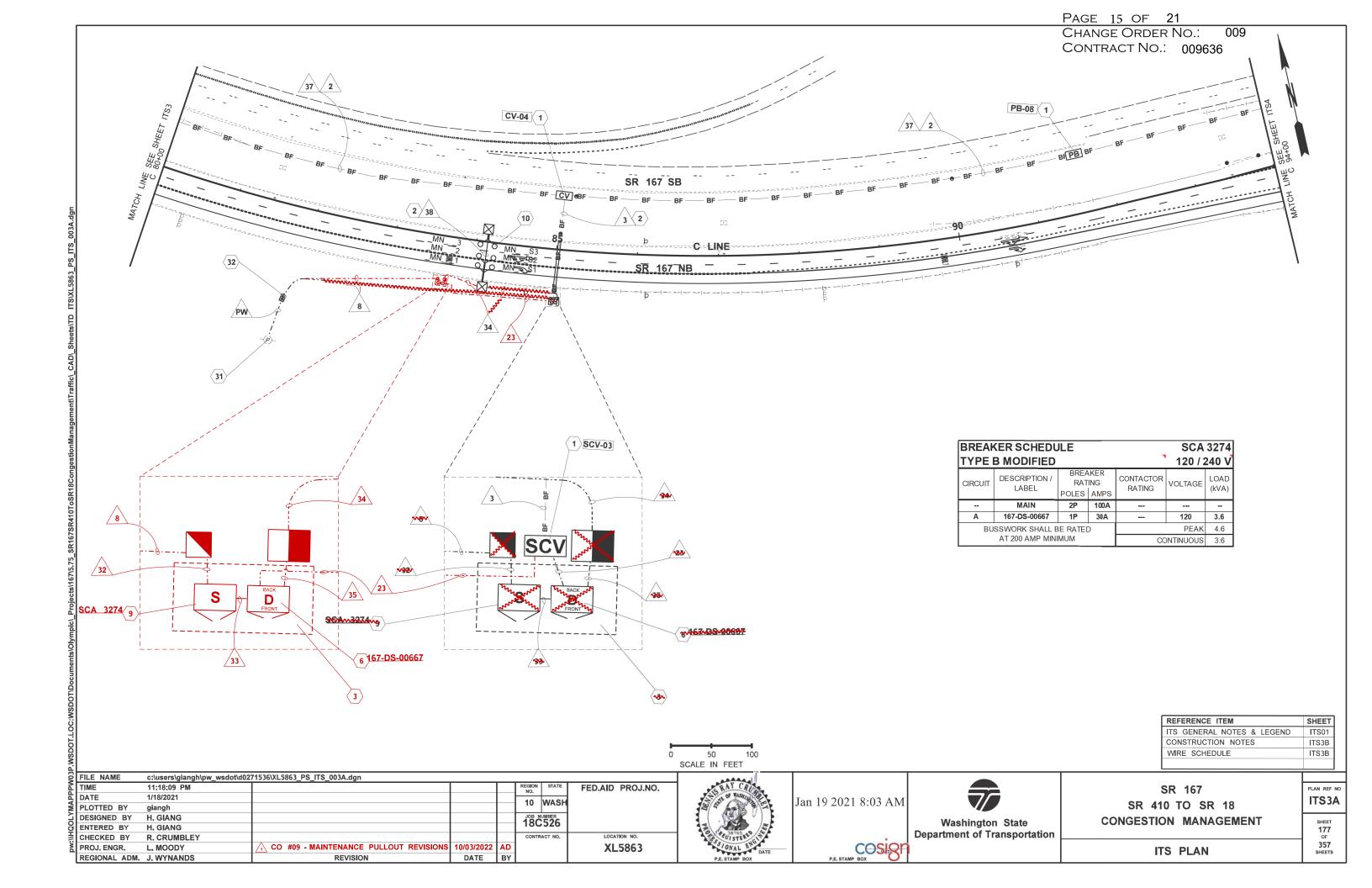


SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN

PLAN REF NO

ITS3A

177 OF 357 SHEETS



NO.	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
9	INSTALL NEW STRUT MOUNT TYPE B MODIFIED SERVICE CABINET SCA 3274 IN ACCORDANCE WITH STANDARD PLAN 10.20 AND BREAKER SCHEDULE SHEET ITS3A.
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
31	SOURCE OF POWER IS AN EXISTING PSE POWER POLL. COORDINATE WITH SERVING UTILITY THROUGH THE PROJECTENGINEER FOR NEW SERVICE CONNECTION.
32	INSTALL (30) FT TIMBER POLE (CLASS 5). INSTALL METER BASE, CONDUIT, CONDUCTORS, RISER, WEATHERHEAD, AN STRIKE POINT FOR AERIAL SERVICE CONNECTION. COIL 10 FEET CONDUCTORS ON THE POLE FOR UTILITY CONNECTION. AERIAL CONDUCTORS TO BE SUPPLIED BY SERVING UTILITY. COORDIANTE SERVICE CONNECTION WI SERVING UTILITY.

$\overline{\wedge}$	CONDUIT					
NO.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
			Α		1-24 SMFO	TOLL SYSTEM FIBER
•	4" w/ (4) 1"	DVOO	В			SPARE W/PULL TAPE
2	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
_	2."	HDPE80			2-12 SMFO	DISTRIBUTION FIBER
3	2."	HDPE80				SPARE W/PULL TAPE
8	2."	PVC80			3-#2	POWER FROM METER TO SERVICE CABI
	2."	PVC80			2-12 SMFO	PRE-TERMINATED SMFO CABLE
23	3."	PVC80				SPARE W/PULL TAPE
	3."	PVC80				SPARE W/PULL TAPE
32	2."	PVC80			3-#2	POWER FROM METER TO SERVICE CABI
32	3."	PVC80				SPARE W/PULL TAPE
33	2."	PVC80			2-#8	POWER SERVICE TO CABINET
34	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
35	3."	PVC80				SPARE W/PULL TAPE
	3."	PVC80				SPARE W/PULL TAPE
			Α		1-96 SMFO	MAINLINE FIBER
37	4" w/ (4) 1"	PVC80	В		2-12 SMFO	DISTRIBUTION FIBER (1-SR167, 1-SR41
31	INNERDUCT	FVCou	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
38	2."	HDPE80			2-2CS CABLE	VEHICLE DETECTION CABLE

<sup>\*</sup> DEFINITIONS: HDPE80 = SCHEDULE 80 OR SDR 9 HDPE; PVC80 = SCHEDULE 80 PVC; RMC = GALVANIZED RIGID METAL CONDUIT; INNERDUCT SHALL BE SCHEDULE 40 PVC OR HDPE.



		HDPE80	Α	1-24 SMFO	TOLL SYSTEM FIBER
2A	4" w/ (4) 1" INNERDUCT		В		SPARE W/PULL TAPE
ZA	INNERDÚCT	HDFEOU	С		SPARE W/PULL TAPE
			D		SPARE W/PULL TAPE
	4" w/ (4) 1" INNERDUCT		Α	1-96 SMFO	MAINLINE FIBER
37A		HDPE80	В	2-12 SMFO	DISTRIBUTION FIBER (1-SR167, 1-SR410)
) 3/A		HDPEOU	С		SPARE W/PULL TAPE
			D		SPARE W/PULL TAPE

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CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.		
PROJ. ENGR.	L. MOODY	<b>△CO#05 - CONDUIT DIRECTIONAL BORING</b>	11/30/2021	AD			XL5863		
REGIONAL ADM.	.I WYNANDS	REVISION	DATE	RY		- 1		1	



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SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

SHEET 178 OF 357 SHEETS

ITS PLAN

SHEET 178

CONS	ISTRUCTION NOTES						
No.	DESCRIPTION						
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.						
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.						
3	CONSTRUCT GENERATOR AND COMMUNICATION HUB FOUNDATION IN ACCORDANCE WITH DETAILS ON SHEET ITCH1.						
5	INSTALL A CABINET WITH A 25 KVA 240/120 VAC TRANSFORMER IN ACCORDANCE WITH STANDARD PLAN J-10.10 AND J-10.25 AND PER TRANSFORMER BREAKER DETAILS <b>ON THIS SHEET</b> .						
6	INSTALL A TRANSFER SWITCH CABINET.						
17	INSTALL AN ITS HUB SEE DETAILS ON <b>SHEETS ITCH1-ITCH4</b> .						
18	INSTALL A GENERATOR SEE DETAILS SHEET ITCH1						
36	INSTALL 100A CIRCUIT BREAKER PER BREAKER SCHEDULE DETAILS ON THIS SHEET.						
54	EXTEND NEW CONDUIT INTO EXISTING JUNCTION BOX.						
55	TERMINATE NEW CONDUIT IN EXISTING JUNCTION BOX.						
61	TERMINATE CAT 6 CABLE INTO EXISTING HT CABINET AND CONNECT IT TO DIGITAL COMMUNICATIONS CONTROLLER.						
64	REPLACE EXISTING TYPE 2 JUNCTION WITH A NEW TYPE 8 JUNCTION BOX.						

BREAK	BREAKER SCHEDULE SCA 096								
TYPE E 4									
CIRCUIT	DESCRIPTION / LABEL	BREAKER RATING POLES AMPS		CONTACTOR RATING	VOLTAGE	LOAD (kVA)			
	MAIN	2P	200A			_			
Α	ILLUMINATION	2P 30A		30 AMP	480	14.4			
В	ILLUMINATION			30 AMP	480	14.4			
С	ILLUMINATION			30 AMP	480	9.6			
D	167-XF-00635	2P	100A		480	25			
E	167-XF-00600	2P	30A		480	3			
F	TRANSFORMER	2P	30A		480	14.4			
G	ILLUMINATION	2P	20A	30 AMP	480	14.4			
Н	ILLUMINATION	2P	20A	30 AMP	480	9.6			
I	ILLUMINATION	2P	21A	30 AMP	480	9.6			
ВІ	JSSWORK SHALL BI		PEAK	105.8					
	AT 200 AMP MININ	CC	104.8						

BREAKER SCHEDULE S				CE:	SCA 0962	
TRANS	FORMER		CIRCUIT:		D	
CABIN	ET		INPU	T VOLTAGE:	480 V	
CIRCUIT	DESCRIPTION /	BREAKER RATING		VOLTAGE	LOAD (kVA)	
	2,1522	POLES	AMPS		(1.77.)	
	MAIN	2P	100A			
Α	167-CH-00635	2P	70A	240	25	
BU	ISSWORK SHALL I	BE RATE	D	PEAK:	26	
	AT 200 AMP MIN	IMUM		CONTINUOUS:	25	

/IRIN	G SCHEDUL	E				
$\overline{\wedge}$	CONDUIT					
		MATERIAL*	INTERDUCT		l <u></u>	REMARKS
NO.	RACEWAY			EXISTING CABLE	NEW CABLE	
	RACEWAT		Α		1-24 SMFO	TOLL SYSTEM FIBER
	4" w/ (4) 1"	<b>D</b> 1/2.22	В			SPARE W/PULL TAPE
2	INNERDUCT	PVC80	C			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
4	2."	PVC80			3-#2	POWER FROM SERVICE TO TRANSFORMER
_	2."	HDPE80			3-#2	POWER FROM SERVICE TO TRANSFORMER
5	3."	HDPE80			·	SPARE W/PULL TAPE
8	2."	PVC80			3-#2	POWER FROM SERVICE CABINET TO HUB
	2."	PVC80			3-#2	POWER FROM SERVICE CABINET TO HUB
9	2."	PVC80				SPARE W/PULL TAPE
			Α			SPARE W/PULL TAPE
	4" w/ (4) 1"		В			SPARE W/PULL TAPE
14	INNERDUCT	PVC80	c			SPARE W/PULL TAPE
	INTEREST		D			SPARE W/PULL TAPE
			A		1-12 SMFO	DISTRIBUTION FIBER (SR512)
	4" w/ (4) 1"		В		1-12 SMFO	DISTRIBUTION FIBER (SR167 SB)
16	INNERDUCT	PVC80	c		1 12 0 111 0	SPARE W/PULL TAPE
	IIIII ZIKBOOT		D			SPARE W/PULL TAPE
	Ex. 2."	RMC		8-#6		ILLUMINATION
17	Ex. 2."	RMC	0-#0			SPARE
18	Ex. 2."	RMC		8-#6	<del> </del>	ILLUMINATION
10	Ex. 2."	RMC		0-#0	1-CAT 6	COMMUNICATION HUB TO HT CABINET
19					1-CAI 6	
19	Ex. 2." Ex. 3."	RMC RMC			L	SPARE SPARE
21	2."	PVC80			1-CAT 6	COMMUNICATION HUB TO HT CABINET
21	2."	PVC80			1-CAT 6	COMMUNICATION HUB TO HT CABINET
23	3."	PVC80			1-CAI 6	SPARE W/PULL TAPE
23	3."	PVC80				SPARE W/PULL TAPE
	3.	PVC8U	^		4.06 SMEO	
	4"/ (4) 4"		A B		1-96 SMFO 2-12 SMFO	MAINLINE FIBER
28	4" w/ (4) 1" INNERDUCT	PVC80	С			DISTRIBUTION FIBER (SR167 NB,SR410)
	INNERDUCT		D		2-12 SMFO	DISTRIBUTION FIBER (SR167 SB,SR512)  SPARE W/PULL TAPE
20	2."	PVC80	ь .		1-CAT 6	DATA STATION COMM TO HUB
29	۷.	PVC8U	_			MAINLINE FIBER
	A"/ (A) A"		A B		1-96 SMFO 2-12 SMFO	
37	4" w/ (4) 1"	PVC80			2-12 SWIFU	DISTRIBUTION FIBER (1-SR167, 1-SR410)  SPARE W/PULL TAPE
	INNERDUCT		C D			
70	2."	DVC 00	ט		2 #2	SPARE W/PULL TAPE
78		PVC80			3-#2	POWER GENERATOR TO HUB
79	2."	PVC80 PVC80			3-#2	POWER GENERATOR TO HUB  SPARE W/PULL TAPE
	۷.	FVCOU	_		1-24 SMFO	
	4" w/ (4) 1"		A B		1-24 SIVIFU	PRE-TERMINATED TOLL SYSTEM FIBER SPARE W/PULL TAPE
	` '	PVC80	С			SPARE W/PULL TAPE  SPARE W/PULL TAPE
	INNERDUCT		D			SPARE W/PULL TAPE  SPARE W/PULL TAPE
83					4.06.63450	
	411 / (4) 411		A		1-96 SMFO	PRE-TERMINATED MAINLINE FIBER
	4" w/ (4) 1"	PVC80	В		2-12 SMFO	PRE-TERMINATED DISTRIBUTION FIBER (SR167NB,SR410)
	INNERDUCT		C		2-12 SMFO	PRE-TERMINATED DISTRIBUTION FIBER (SR167SB,SR512)
			D			SPARE W/PULL TAPE

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Ž	PROJ. ENGR.	L. MOODY	AD3 - ADDED SHEET	02/24/2021	HG	1		XL5863		
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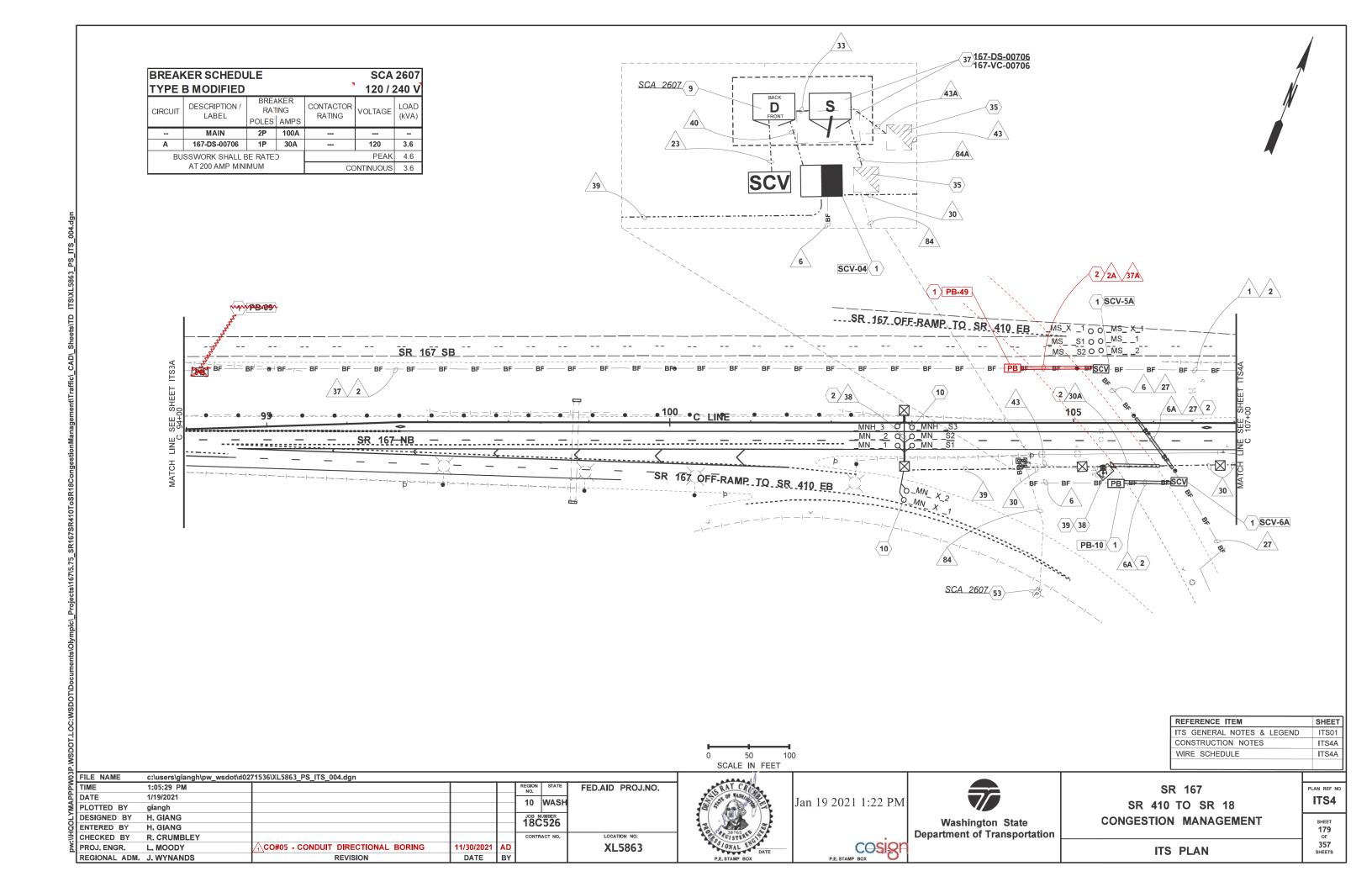
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Washington State
Department of Transportation

SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

SHEET 178A OF 357 SHEETS



CONIC	TRUCTION NOTES
CONS	TRUCTION NOTES
	DESCRIPTION
NO.	
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
9	INSTALL NEW STRUT MOUNT TYPE B MODIFIED SERVICE CABINET SCA 2607 IN ACCORDANCE WITH STANDARD PLAN J-10.20 AND BREAKER SCHEDULE ON SHEET ITS4.
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
35	INSTALL NEW CONDUIT IN EXISTING JUNCTION BOX AND EXTEND IT TO NEW DATA CABINET.
36	INSTALL 100A CIRCUIT BREAKER AS SHOW ON BREAKER SCHEDULE TO POWER THE HUB.
37	REMOVE EXISTING ITS SINGLE CABINET FOUNDATION AND CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-10.10</b> . INSTALL A 334D DATA STATION WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON <b>DETAIL SHEET ITD1</b> .
38	REPLACE EXISTING CCTV AND CAMERA CABLE WITH A NEW CCTV AND CABLE.
39	INSTALL WAVETRONIX SMART SENSOR, CONDUIT, WEATHER HEAD, AND ASSOCIATED EQUIPMENT ON CCTV POLE PER DETAIL <b>SHEET ITD3</b> , PER MANUFACTURER'S RECOMMENDATION'S, AND SPECIAL PROVISIONS.
51	REMOVE EXITING CCTV AND WAVETRONIX EQUIPMENT DELIVER TO WSDOT SIGNAL SHOP. INSTALL NEW CCTV AND WAVETRONIX EQUIPMENT PER EQUIPMENT SCHEDULE ON <b>DETAIL SHEET ITD01</b> .
53	REMOVE EXISTING SERVICE SCABINET (SCA 2607) AND EXTEND CONDUCTORS INSTALL NEW METER BASE PER SERVING UTILITY REQUIREMNTS. USING EXISTING CONDUCTORS AND CONNECT TO NEW TYPE B MODIFIED SERVICE CABINET.

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$\wedge$	CONDUIT							
NO.		MATERIAL*	INTERDUCT	NEW CABLE	REMARKS			
NO.	RACEWAY			NEW CABLE				
			Α	1-96 SMFO	MAINLINE FIBER			
	4" w/ (4) 1"	D) (0.00	В	1-12 SMFO	DISTRIBUTION FIBER			
1	INNERDUCT	PVC80	С		SPARE W/PULL TAPE			
			D		SPARE W/PULL TAPE			
			Α	1-24 SMFO	TOLL SYSTEM FIBER			
•	4" w/ (4) 1"	PVC80	В		SPARE W/PULL TAPE			
2	INNERDUCT	PVC80	С		SPARE W/PULL TAPE			
			D		SPARE W/PULL TAPE			
6	2."	PVC80		2-12 SMFO	DISTRIBUTION FIBER (SR 167 SB)			
6A	2."	HDPE80		2-12 SMFO	DISTRIBUTION FIBER (SR 167 SB)			
0A	2."	HDPE80			SPARE W/PULL TAPE			
	2."	PVC80		2-12 SMFO	PRE-TERMINATED SMFO CABLE			
23	3."	PVC80			SPARE W/PULL TAPE			
	3."	PVC80			SPARE W/PULL TAPE			
	4" w/ (4) 1"		Α	1-12 SMFO	DISTRIBUTION FIBER (SR410)			
27	INNERDUCT	PVC80	B, C		SPARE W/PULL TAPE			
	INNERDOCT		D		SPARE W/PULL TAPE			
30	2."	PVC80		1-2CS CABLE	VEHICLE DETECTION CABLE			
30A	2."	HDPE80		1-2CS CABLE	VEHICLE DETECTION CABLE			
33	2."	PVC80		3-#8	POWER SERVICE TO CABINET			
	4" w/ (4) 1" INNERDUCT		Α	1-96 SMFO	MAINLINE FIBER			
27		DVOOO	В	2-12 SMFO	DISTRIBUTION FIBER (1-SR167, 1-SR410)			
37		PVC80	С		SPARE W/PULL TAPE			
			D		SPARE W/PULL TAPE			
38	2."	PVC80		2-2CS CABLE	VEHICLE DETECTION CABLE			
39	2."	PVC80		8-2CS CABLE	VEHICLE DETECTION CABLE			
	2."	PVC80		9-2CS CABLE	VEHICLE DETECTION CABLE			
40	2."	PVC80		WAVETRONIX, 1-CAT-6	WAVETRONIX HOMERUN CABLE, CCTV CABLE			
40	3."	PVC80			SPARE W/PULL TAPE			
	3."	PVC80			SPARE W/PULL TAPE			
43	Ex. 2."	PVC80		WAVETRONIX	REMOVE EXISTING WAVETRONIX CABLE			
43	Ex. 2."	PVC80		1-CAT 6	REMOVE EXISTING CCTV CABLE			
43A	2."	PVC80		WAVETRONIX	WAVETRONIX CABLE			
43A	3."	PVC80		1-CAT 6	CCTV CABLE			
84	Ex. 2."	PVC80		3#2	REMOVE EXISTING POWER CABLE			
84A	2."	PVC80		3#2	POWER TO SERVICE CANBINET			
04A	3."	PVC80		_	SPARE W/PULL TAPE			
			Α	1-24 SMFO	TOLL SYSTEM FIBER			
2.4	4" w/ (4) 1"	<u> Првсоо</u>	В		SPARE W/PULL TAPE			
2A	INNERDÚCT	HDPE80	С		SPARE W/PULL TAPE			
			D		SPARE W/PULL TAPE			
			Α	1-96 SMFO	MAINLINE FIBER			
274	4" w/ (4) 1"	LIDDEGG	В	2-12 SMFO	DISTRIBUTION FIBER (1-SR167, 1-SR410)			
37A	INNERDÚCT	HDPE80	С		SPARE W/PULL TAPE			
	1		D		SPARE W/PULL TAPE			



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DESIGNED BY	H. GIANG				18C	MBER F 2 C			
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CHECKED BY	R. CRUMBLEY				CONTRA	CT NO.	LOCATION NO.		
PROJ. ENGR.	L. MOODY	CO#05 - CONDUIT DIRECTIONAL BORING	09/30/2021	JW	1		XL5863		
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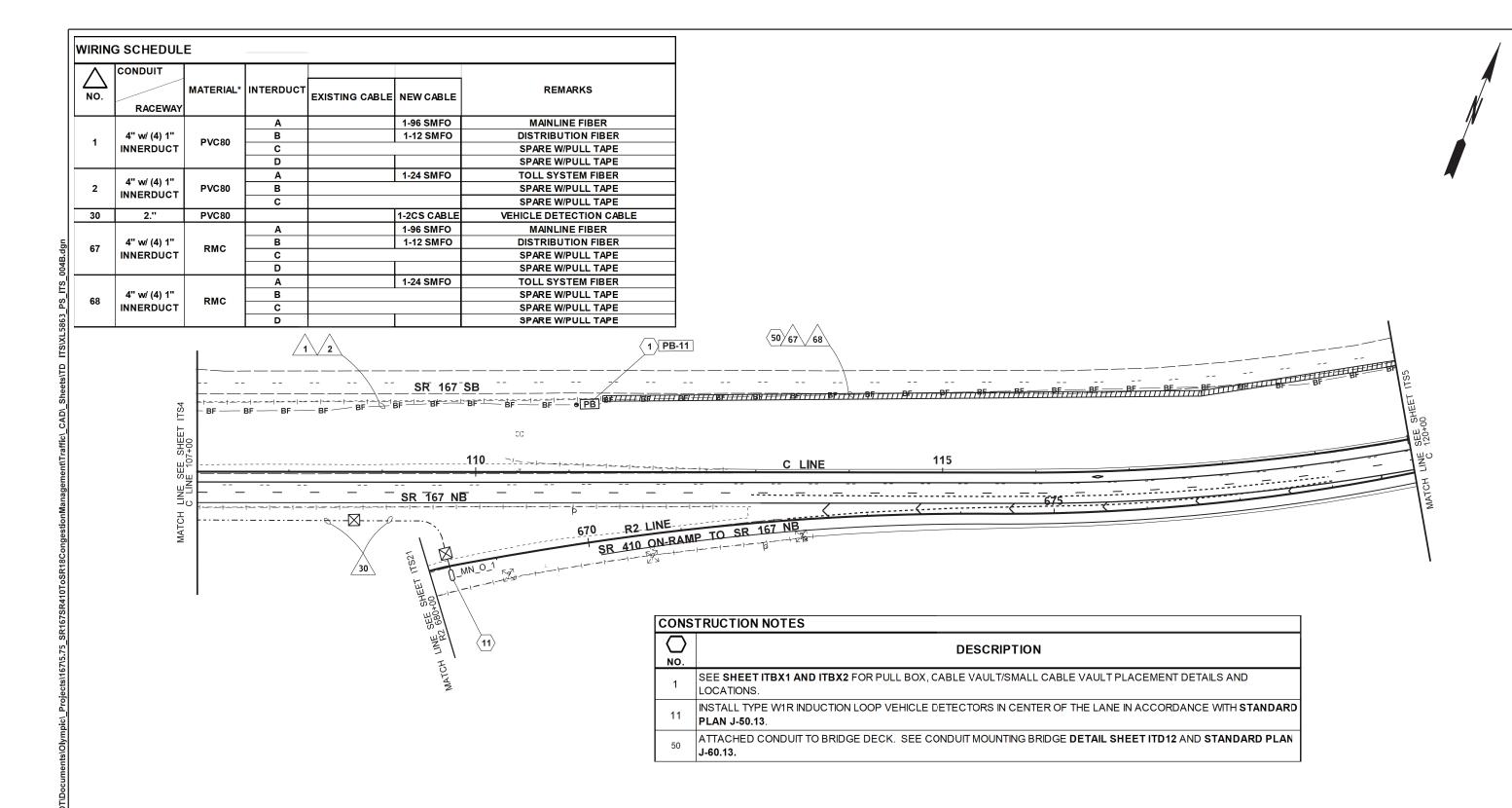
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SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN





REFERENCE ITEM
ITS GENERAL NOTES & LEGEND
CONSTRUCTION NOTES
WIRE SCHEDULE

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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

SHEET 181 OF 357 SHEETS

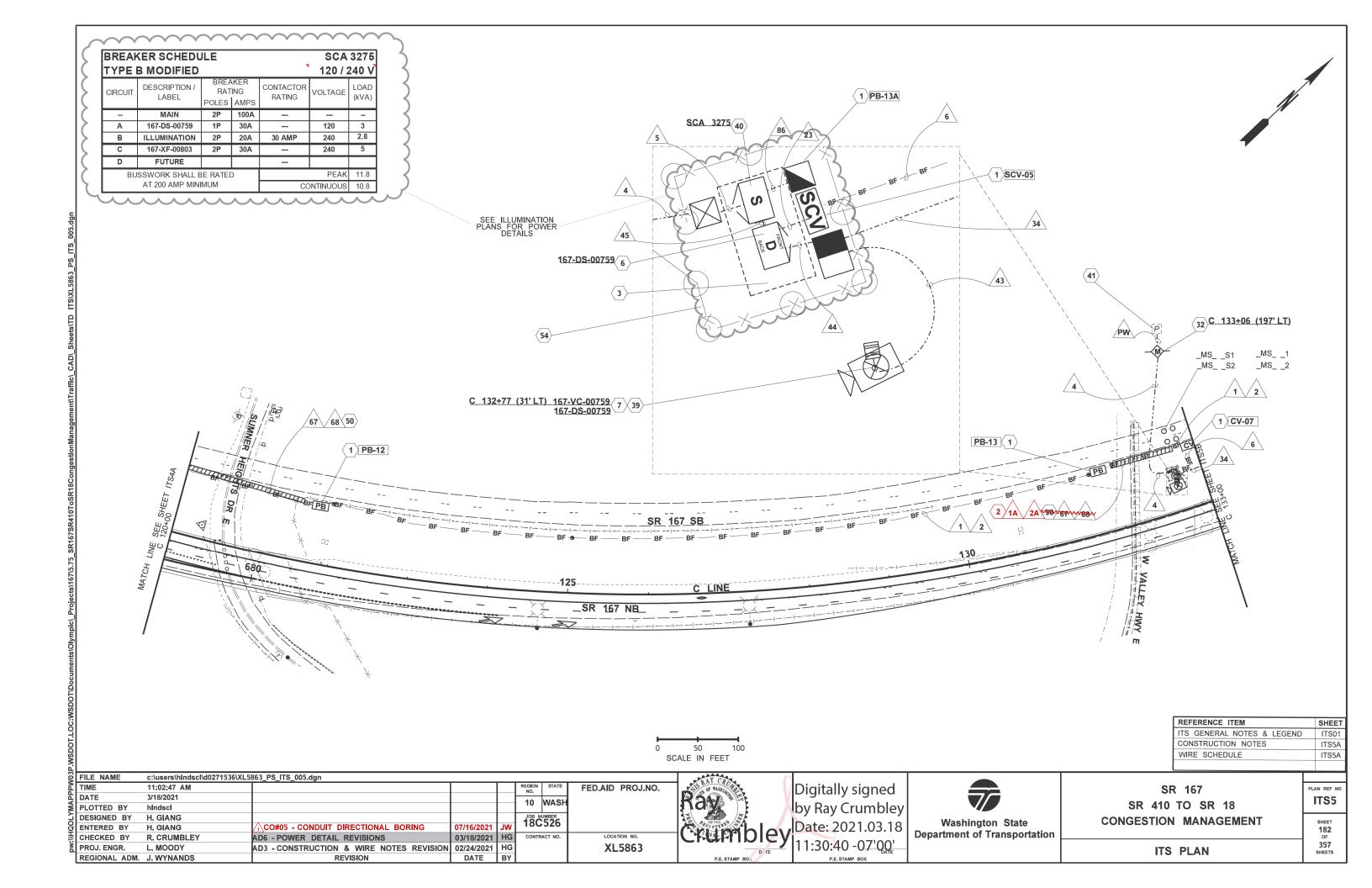
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PLAN REF NO

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ITS01 ITS4B



CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-10.10</b> .
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .
32	INSTALL NEW METER PEDESTAL PER PSE REQUIREMENTS. INSTALL SINGLE MAIN BREAKER IN PLACE OF LOAD CENTER IN BOTTOM OF PEDESTAL. BREAKER SIZE SHALL MATCH MAIN BREAKER SIZE IN SERVICE CABINET SCA 3275.
39	INSTALL WAVETRONIX SMART SENSOR, CONDUIT, WEATHER HEAD, AND ASSOCIATED EQUIPMENT ON CCTV POLE PER DETAIL <b>SHEET ITD3</b> , PER MANUFACTURER'S RECOMMENDATION'S, AND SPECIAL PROVISIONS.
40	INSTALL NEW TYPE B MODIFIED SERVICE CABINET WITH PHOTOCELL SCA 3275 IN ACCORDANCE WITH <b>STANDARD PLAN J-10.20</b> .
41	SOURCE OF POWER IS AN EXISTING PSE CABLE VAULT. INSTALL CONDUIT AND CONDUCTORS PER SERVING UTILITY REQUIREMENTS. COORDINATE WITH SERVING UTILITY THROUGH THE PROJECT ENGINEER FOR NEW SERVICE CONNECTION. TERMINATE NEW CONDUIT IN EXISTING PAD MOUNTED TRANSFORMER AND INSTALL NEW CONDUCTORS PER SERVING UTILITY REQUIREMENTS.
50	ATTACHED CONDUIT TO BRIDGE DECK. SEE CONDUIT MOUNTING BRIDGE DETAIL <b>SHEET ITD12</b> AND <b>STANDARD PLAN J-60.13</b> .
54	INSTALL SECURITY FENCING SEE DETAILS ON <b>SHEET ITD13</b> .
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.

$\overline{\Lambda}$	CONDUIT					
NO.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
			Α		1-96 SMFO	MAINLINE FIBER
	4" w/ (4) 1"	D)/000	В		1-12 SMFO	DISTRIBUTION FIBER
1	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α		1-24 SMFO	TOLL SYSTEM FIBER
•	4" w/ (4) 1"	D) (0.00	В			SPARE W/PULL TAPE
2	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
4	2."	PVC80			3-#2	POWER FROM METERTO SERVICE
_	2."	PVC80			3-#2	POWER FROM METERTO SERVICE
5	2."	PVC80				SPARE W/PULL TAPE
6	2."	PVC80			2-12 SMFO	DISTRIBUTION FIBER
	2."	PVC80			2-12 SMFO	PRE-TERMINATED SMFO CABLE
23	3." PVC80					SPARE W/PULL TAPE
	3."	PVC80				SPARE W/PULL TAPE
34	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
40	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE
43	2."	PVC80			1-CAT 6	CCTV CABLE
	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE
44	2."	PVC80			1-CAT 6	CCTV CABLE
44	3."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
	3."	PVC80				SPARE W/PULL TAPE
45	2."	PVC80			2-#8	POWER SERVICE TO CABINET
			Α		1-96 SMFO	MAINLINE FIBER
67	4" w/ (4) 1"	RMC	В		1-12 SMFO	DISTRIBUTION FIBER
01	INNERDUCT	RIVIC	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
	4" > (4) 4"		Α		1-24 SMFO	TOLL SYSTEM FIBER
<b>6</b> 8	4" w/ (4) 1" INNERDUCT	RMC	B, C			SPARE W/PULL TAPE
	INNERDOCI		D			SPARE W/PULL TAPE
	3."	PVC80			2#2/0, 1#6	SERVICE CABINET POWER TRANSFORME
86	3."	PVC80				FUTURE POWER TOLL CABINET
	2."	PVC80				SPARE W/PULL TAPE
PW	POWER SER		CTION. INSTAI LE 80 PVC CO	L THE FOLLOWING	UNLESS OTHE	ERWISE DIRECTED BY THE SERVING UTILIT

\* DEFINITIONS: HDPE80 = SCHEDULE 80 OR SDR 9 HDPE; PVC80 = SCHEDULE 80 PVC; RMC = GALVANIZED RIGID METAL CONDUIT.

		w/ (4) 1" ERDUCT HDPE80	Α	1-96 SMFO	MAINLINE FIBER
1 1 1	1A 4" w/ (4) 1" INNERDUCT		В	1-12 SMFO	DISTRIBUTION FIBER
I IA			С		SPARE W/PULL TAPE
			D		SPARE W/PULL TAPE
			Α	1-24 SMFO	TOLL SYSTEM FIBER
2A	4" w/ (4) 1" INNERDUCT	UDDEOU	В		SPARE W/PULL TAPE
2A	INNERDÚCT	IERDUCT HDPE80	С		SPARE W/PULL TAPE
			D		SPARE W/PULL TAPE

				C		SPARE WPULL TAPE	
$\wedge$ $\sqcup$				D		SPARE W/PULL TAPE	
<u>/1</u>				Α	1-24 SMFO	TOLL SYSTEM FIBER	
	2A	4" w/ (4) 1" INNERDUCT	HDPE80	HDPE80	В		SPARE W/PULL TAPE
	2A				С		SPARE W/PULL TAPE
				D		SPARE W/PULL TAPE	

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PROJ. ENGR.	L. MOODY	CO#05 - CONDUIT DIRECTIONAL BORING	09/30/2021	JW			XL5863
REGIONAL ADM	. J. WYNANDS	REVISION	DATE	BY			



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SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

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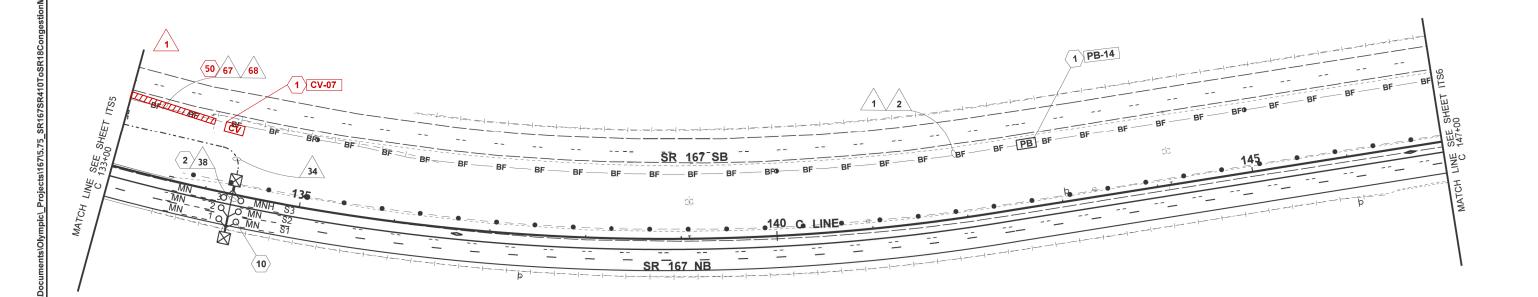
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183 OF

357 SHEETS

WIRING	WIRING SCHEDULE							
No.	CONDUIT	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS		
			Α		1-96 SMFO	MAINLINE FIBER		
1	4" w/ (4) 1"	PVC80	В		1-12 SMFO	DISTRIBUTION FIBER		
1	INNERDUCT	PVCou	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
			Α		1-24 SMFO	TOLL SYSTEM FIBER		
2	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE		
2	INNERDUCT	PVCou	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
6	2."	PVC80			2-12 SMFO	DISTRIBUTION FIBER		
34	2."	PVC80			6-2CS CABLE	VEHICLE DECTECTION CABLE		
38	2."	PVC80			4-2CS CABLE	VEHICLE DECTECTION CABLE		

CONS	CONSTRUCTION NOTES							
NO.	DESCRIPTION							
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.							
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.							
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.							



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	DESIGNED BY	H. GIANG				18C526		
g	ENTERED BY	H. GIANG				100	,520	
░	CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.
ě	PROJ. ENGR.	L. MOODY	CO#05 - CONDUIT DIRECTIONAL BORING	07/16/2021	JW			XL5863
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY	l		



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SR 167			
SR 410 TO SR 18			
CONGESTION MANAGEMENT			
ITS PLAN			

ITS5B 184 OF 357 SHEETS



ITS GENERAL NOTES & LEGEND CONSTRUCTION NOTES WIRE SCHEDULE

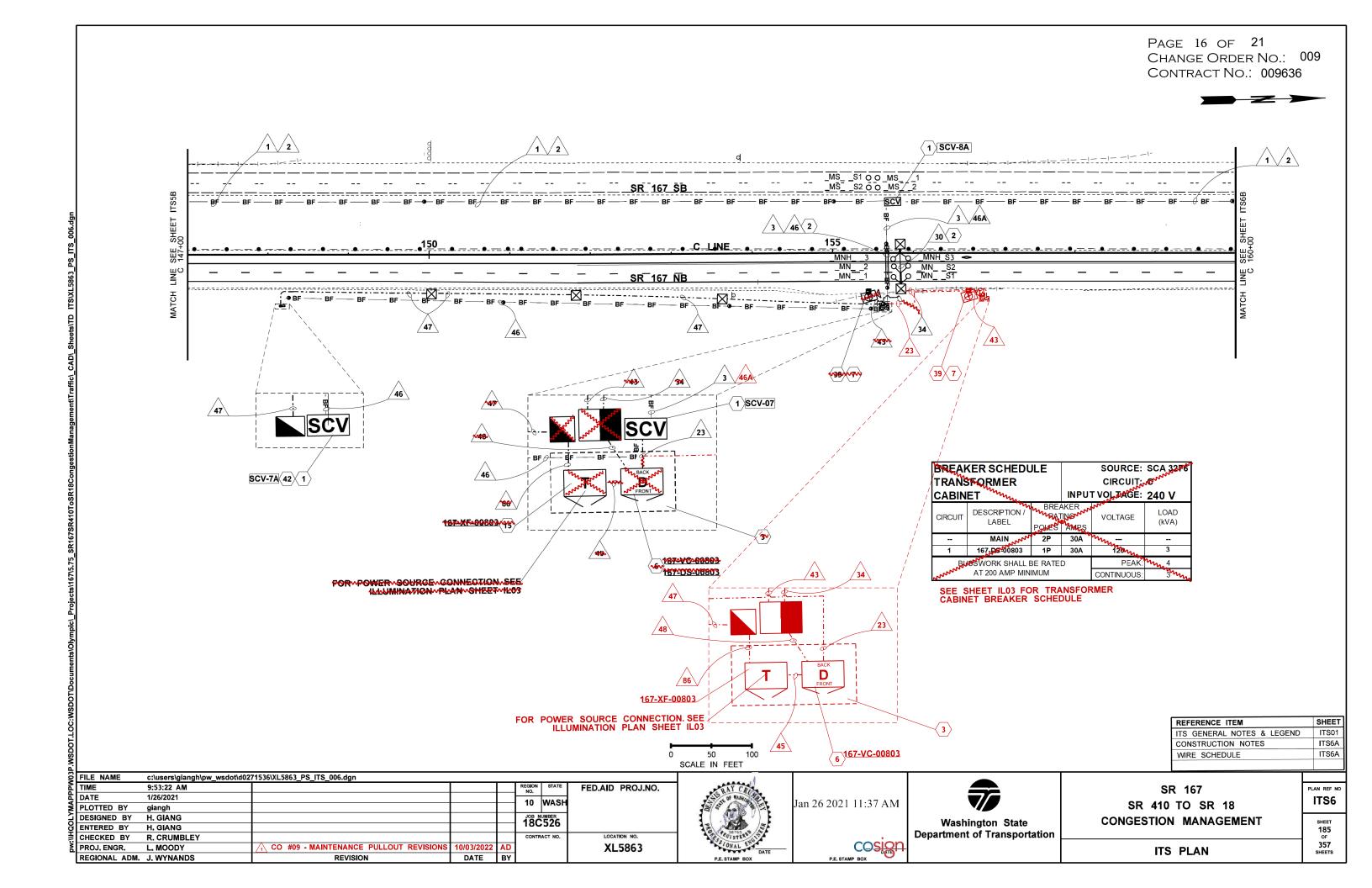
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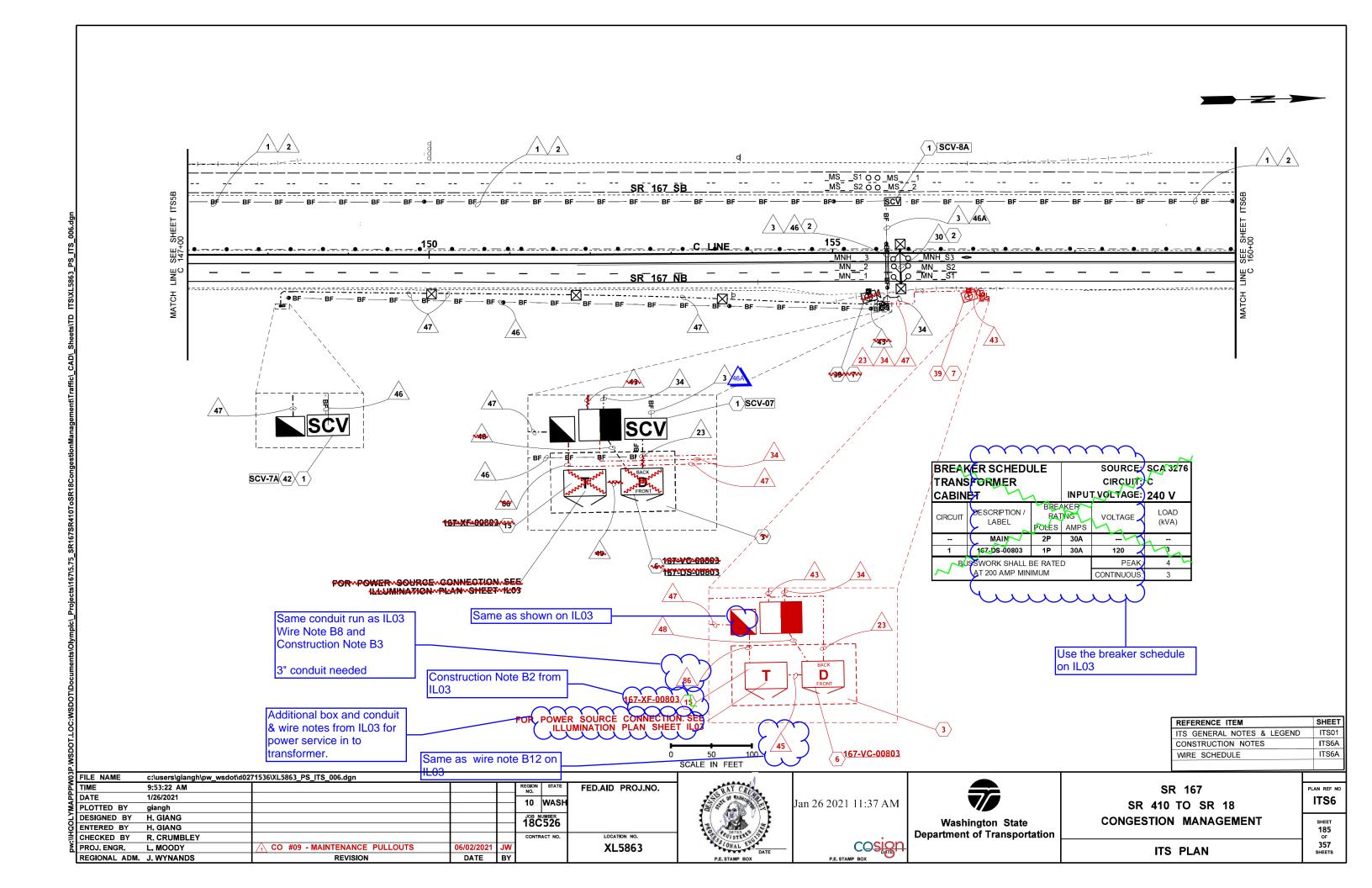
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SHEET ITS01

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CHANGE ORDER NO.: 009 CONTRACT NO.: 009636

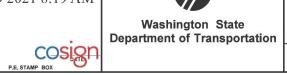
CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-10.10</b> .
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL <b>SHEET ITD01</b> .
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
15	INSTALL'A'CABINETWITH'A'S KVA'480/240 VAC/TRANSFORMER IN/ACCORDANCE WITH STANDARD PLAN J. 10:410:410 AND J. 10.25 AND/PER/TRANSFORMER BREAKER DETAILS ON SHEETS ITS 6.
39	INSTALL WAVETRONIX SMART SENSOR, CONDUIT, WEATHER HEAD, AND ASSOCIATED EQUIPMENT ON CCTV POLE PER DETAIL <b>SHEET ITD8</b> , PER MANUFACTURER'S RECOMMENDATION'S, AND SPECIAL PROVISIONS.
42	COIL 100' TOLL SYSTEM FIBER IN THE SMALL CABLE VAULT.

WIRING	SCHEDUL	E					
NO.	CONDUIT	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CA	BLE	REMARKS
	RACEWAY						
			Α		1-96 SN		MAINLINE FIBER
1	4" w/ (4) 1"	PVC80	В		1-12 SN	/IFO	DISTRIBUTION FIBER
	INNERDUCT		С				SPARE W/PULL TAPE
			D				SPARE W/PULL TAPE
			Α		1-24 SN	IFO	TOLL SYSTEM FIBER
2	4" w/ (4) 1"	PVC80	В				SPARE W/PULL TAPE
	INNERDUCT	P VC80	С				SPARE W/PULL TAPE
			D				SPARE W/PULL TAPE
	2."	HDPE80			2-12 SN	IFO	DISTRIBUTION FIBER (SR 167)
3	3."	HDPE80		•			SPARE W/PULL TAPE
	2."	PVC80			2-12 SN	/IFO	PRE-TERMINATED SMFO CABLE
23	3."	PVC80		•	•		SPARE W/PULL TAPE
	3."	PVC80					SPARE W/PULL TAPE
30	2."	HDPE80			2-2CS C	ABLE	VEHICLE DETECTION CABLE
30	3."	HDPE80			•		SPARE W/PULL TAPE
34	2."	PVC80			6-2CS C	ABLE	VEHICLE DETECTION CABLE
45	2."	PVC80			2-#8	3	POWER SERVICE TO CABINET
40	2."	PVC80			2-24 SN	IFO	DISTRIBUTION FIBER (TOLL SYSTEM)
46	3."	PVC80		•	•		SPARE
46A	2."	HDPE80			2-24 SN	IFO	DISTRIBUTION FIBER (TOLL SYSTEM)
46A	3."	HDPE80			•		SPARE
47	3."	PVC80					EMPTY (CONDUCTORS POWER TOLL CABINET)
	2."	PVC80			WAVETR	ONIX	WAVETRONIX HOMERUN CABLE
40	2."	PVC80			1-CAT	٦6	CCTV CABLE
48	2."	PVC80			6-2CS C	ABLE	VEHICLE DETECTION CABLE
	3."	PVC80					SPARE W/PULL TAPE
0E \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	~~~ <b>3</b> , <b>"</b> ~~~~	<b>~~PVC80</b> ~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······································	<b><sup>1</sup>√2</b> 2#270;	<u>1~#6~</u>	······································
<b>%5</b> ^^	^^ <b>3</b> . <sup>1</sup> /_^^	~~ <b>PV@80</b> ~~	^^^	·/////////////////////////////////////	·////////	<b>VVVV</b>	<b>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</b>
							VVVVPOWER'SERWCE'TO'TRANSFORMER'VVVV
86	3."	HDPE80					SPARE W/PULL TAPE
43	2." P	VC80		WAVETF	RONIX		WAVETRONIX HOME RUN CABLE
40	2." P	VC80		1-CA	Т 6		CCTV CABLE

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DESIGNED BY	H. GIANG				JOB N	526	
ENTERED BY	H. GIANG				100	,320	
CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY	CO #09 - MAINTENANCE PULLOUT REVISIONS	10/03/2022	AD			XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			



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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN

PLAN REF NO ITS6A

SHEET 186
OF 357
SHEETS

NO.	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD01.
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
15	INSTALL'A/CABINETWITH/A/SKVA/480/240/VAC/TRANSFORMER/IN/A/CCORDANCE/WITH/STANDARD/PLAN/J-10:10:40:A0AND/J-10:25/AND/PER/TRANSFORMER/BREAKER/DE/TAILS/ON/SHEETS/ITS6/
39	INSTALL WAVETRONIX SMART SENSOR, CONDUIT, WEATHER HEAD, AND ASSOCIATED EQUIPMENT ON CCTV POLE PER DETAIL <b>SHEET ITD8</b> , PER MANUFACTURER'S RECOMMENDATION'S, AND SPECIAL PROVISIONS.
42	COIL 100' TOLL SYSTEM FIBER IN THE SMALL CABLE VAULT.

Λ	CONDUIT							
NO.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS		
			Α		1-96 SMFO	MAINLINE FIBER		
	4" w/ (4) 1"	D) (0.00	В		1-12 SMFO	DISTRIBUTION FIBER		
1	INNERDUCT	PVC80	С		•	SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
			Α		1-24 SMFO	TOLL SYSTEM FIBER		
•	4" w/ (4) 1"	D) (0.00	В		•	SPARE W/PULL TAPE		
2	INNERDUCT	PVC80	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
_	2."	HDPE80			2-12 SMFO	DISTRIBUTION FIBER (SR 167)		
3	3."	HDPE80				SPARE W/PULL TAPE		
	2."	PVC80			2-12 SMFO	PRE-TERMINATED SMFO CABLE		
23	3."	PVC80			•	SPARE W/PULL TAPE		
	3."	PVC80				SPARE W/PULL TAPE		
30	2."	HDPE80			2-2CS CABLE	VEHICLE DETECTION CABLE		
30	3."	HDPE80				SPARE W/PULL TAPE		
34	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE		
45	2."	PVC80			2-#8	POWER SERVICE TO CABINET		
46	2."	PVC80			2-24 SMFO	DISTRIBUTION FIBER (TOLL SYSTEM)		
40	3."	PVC80				SPARE		
46A	2."	HDPE80			2-24 SMFO	DISTRIBUTION FIBER (TOLL SYSTEM)		
46A	3."	HDPE80			•	SPARE		
47	3."	PVC80				EMPTY (CONDUCTORS POWER TOLL CABINE		
	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE		
48	2."	PVC80			1-CAT 6	CCTV CABLE		
40	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE		
	3."	PVC80				SPARE W/PULL TAPE		
√8/5/ <sup>^</sup>						<b>/////POWER\SERVICE/TO\TRANSFORMER\^</b>		
v <b>3</b> 0						<b>^^^^~FUTURE/POWER/TOLL/CABINET/^^^</b>		
86			······································	······································	<b>^^2~#2%0,1~#6</b> ^	<b>/////POWER'SERVICE'TO'TRANSFORMER'/</b>		
30	3."	HDPE80				SPARE W/PULL TAPE		
43	2." F	PVC80		WAVETI	RONIX	WAVETRONIX HOME RUN CABLE CCTV CABLE		

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CHECKED B	Y R. CRUMBLEY				CONTRACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY	RFI 071 - CABINET PAD 803	03/15/2022	HG		XL5863
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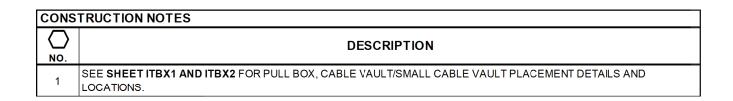
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

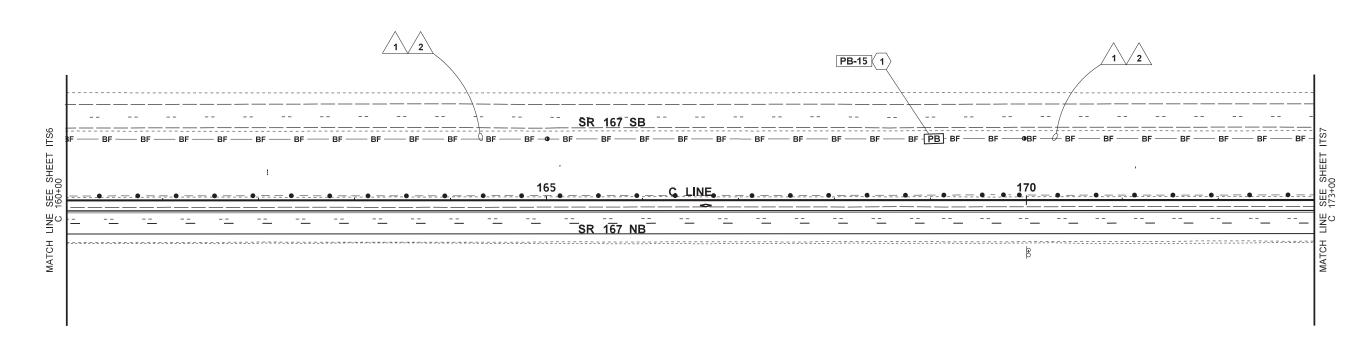
PLAN REF NO
ITS6A

SHEET
186
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357
SHEETS





$\wedge$	CONDUIT						
NO.	RACEWAY		INTERDUCT	EXISTING CABLE	NEWCABLE	REMARKS	
1	4" w/ (4) 1" INNERDUCT			Α		1-96 SMFO	MANLINE FIBER
		PVC80	В		1-12 SMFO	DISTRIBUTION FIBER	
		PVC80	ပ			SPARE W/PULL TAPE	
			D			SPARE W/PULL TAPE	
			Α		1-24 SMFO	TOLL SYSTEM FIBER	
2	4" w/ (4) 1" INNERDUCT	D)/C00	В			SPARE W/PULL TAPE	
		PVC80	С			SPARE W/PULL TAPE	
			D			SPARE W/PULL TAPE	



0 50 10 SCALE IN FEET

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS6B
WIRE SCHEDULE	ITS6B

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DATE	1/18/2021					WASH	
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DESIGNED BY	H. GIANG				JOB N	UMBER 526	
ENTERED BY	H. GIANG				100	,526	
DESIGNED BY ENTERED BY CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
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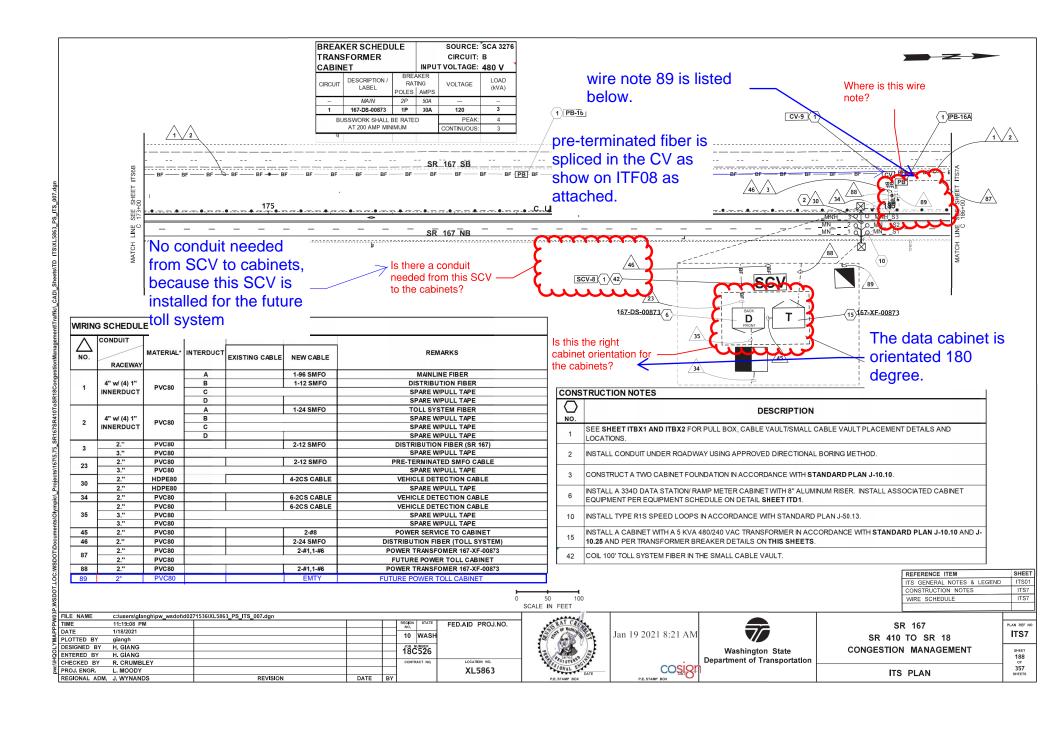
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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

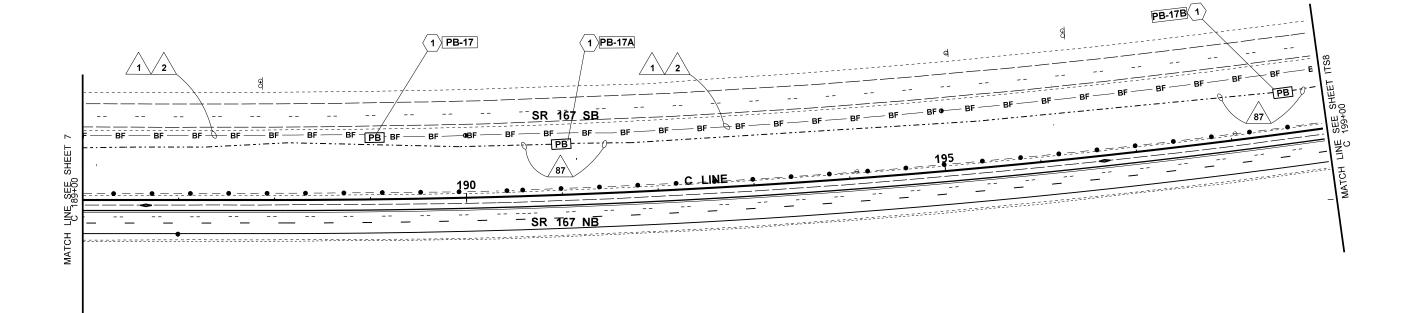
SHEET 187 OF 357 SHEETS

ITS6B



CONS	TRUCTION NOTES
Qö	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.





WIRIN	G SCHEDULI	E						
No.	CONDUIT	MATERIAL	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS		
	4" w/ (4) 1" INNERDUCT	PVC80	Α		1-96 SMFO	MAINLINE FIBER		
			В		1-12 SMFO	DISTRIBUTION FIBER		
1			С			SPARE W/PULL TAPE		
				D			SPARE W/PULL TAPE	
			Α		1-24 SMFO	TOLL SYSTEM FIBER		
2	4" w/ (4) 1"	D) (0.00	D) (0.00	D) (0.00	В			SPARE W/PULL TAPE
	INNERDUCT	PVC80	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
87	2."	PVC80			2-#1,1-#6	POWER TRANSFOMER 167-XF-00873		
87	2."	PVC80				FUTURE POWER TOLL CABINET		

0	50		1
	SCALE IN	FEET	

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS7A
WIRE SCHEDULE	ITS7A

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DESIGNED BY	H. GIANG				JOB N	UMBER 526		
ENTERED BY	H. GIANG				100	,526		
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.	
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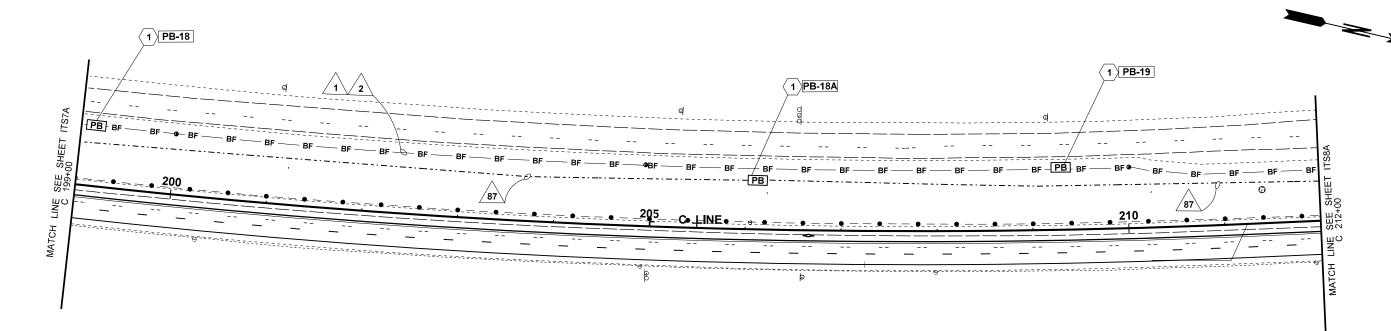
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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN

SHEET 189 OF 357 SHEETS

PLAN REF NO

## Section 12, 13, 14; T. 20 N., R 4 E., W.M.



WIRING SCHEDULE						
No.	CONDUIT	MATERIAL*	INTERDUCT	NEW CABLE	REMARKS	
			Α	1-96 SMFO	MAINLINE FIBER	
1	4" w/ (4) 1"	PVC80	В	1-12 SMFO	DISTRIBUTION FIBER	
1	INNERDUCT		С		SPARE W/PULL TAPE	
			D		SPARE W/PULL TAPE	
			Α	1-24 SMFO	TOLL SYSTEM FIBER	
2	4" w/ (4) 1"	D) (0.00	В		SPARE W/PULL TAPE	
2	INNERDUCT	PVC80	С		SPARE W/PULL TAPE	
			D		SPARE W/PULL TAPE	
0.7	2."	PVC80		2-#1,1-#6	POWER TRANSFOMER 167-XF-00873	
87	2."	PVC80			FUTURE POWER TOLL CABINET	

CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.

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REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS8
WIRE SCHEDULE	ITS8

ITS8

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₹.	ENTERED BY	H. GIANG				100	,526	
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Ѯ	PROJ. ENGR.	L. MOODY						XL5863
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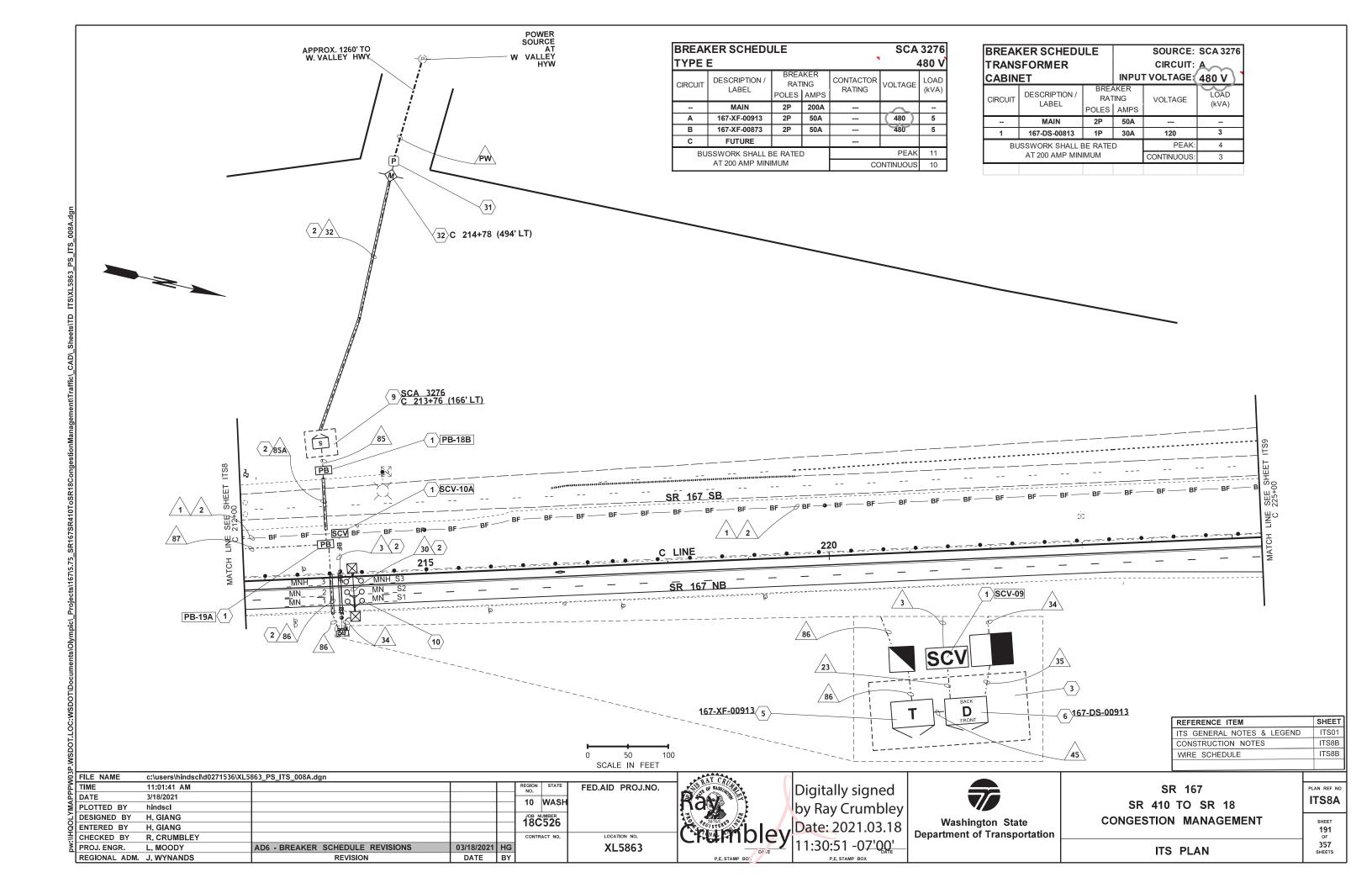
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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN

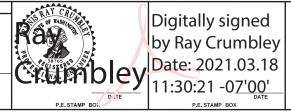


NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
5	INSTALL A CABINET WITH A 5 KVA 480/120 VAC TRANSFORMER IN ACCORDANCE WITH STANDARD PLAN J-10.10 AND J-10.25 AND PER TRANSFORMER BREAKER DETAILS <b>ON THIS SHEET</b> .
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL <b>SHEET ITD1</b> .
9	INSTALL NEW TYPE E SERVICE CABINET (SCA 3276) ON FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.22 AND BREAKER SCHEDULE ON THIS SHEET.
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
31	SOURCE OF POWER IS AN PSE CABLE VAULT. COORDINATE WITH SERVING UTILITY THROUGH THE PROJECT ENGINEER FOR NEW SERVICE CONNECTION. TERMINATE NEW CONDUIT IN ELECTRICAL VAULT AND INSTALL NEW CONDUCTORS. SEE APPENDIX FOR PSE REQUIREMENTS.
32	INSTALL NEW METER PEDESTAL PER PSE REQUIREMENTS. INSTALL SINGLE MAIN BREAKER IN PLACE OF LOAD CENTER IN BOTTOM OF PEDESTAL. BREAKER SIZE SHALL MATCH MAIN BREAKER SIZE IN SERVICE CABINET SCA 3276.

$\overline{\Lambda}$	CONDUIT					
NO.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
			Α		1-96 SMFO	MAINLINE FIBER
4	4" w/ (4) 1"	PVC80	В		1-12 SMFO	DISTRIBUTION FIBER
1	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α		1-24 SMFO	TOLL SYSTEM FIBER
2	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
2	INNERDUCT	PVCou	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
3	2."	HDPE80			2-12 SMFO	DISTRIBUTION FIBER (SR 410)
3	3."	HDPE80				SPARE W/PULL TAPE
23	2."	PVC80			2-12 SMFO	PRE-TERMINATED SMFO CABLE
23	3."	PVC80				SPARE W/PULL TAPE
30	2."	HDPE80			2-2CS CABLE	VEHICLE DETECTION CABLE
30	3."	HDPE80				SPARE W/PULL TAPE
	2."	PVC80			1-CAT 6	CCTV CABLE
31	2."	PVC80			5-2CS CABLE	VEHICLE DETECTION CABLE
٠.	3."	PVC80				SPARE W/PULL TAPE
	3."	PVC80				SPARE W/PULL TAPE
32	3."	HDPE80			3-#3/0	POWER FROM METER TO SERVICE CABINET
34	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
35	3."	PVC80				SPARE W/PULL TAPE
	3."	PVC80				SPARE W/PULL TAPE
45	2."	PVC80			2-#8	POWER SERVICE TO CABINET
	2."	PVC80			2-#2,1-#6	POWER TRANSFOMER 167-XF-00913
85	2."	PVC80			2-#1,1-#6	POWER TRANSFOMER 167-XF-00873
03	2."	PVC80				FUTURE POWER TOLL CABINET
	3."	PVC80				SPARE W/PULL TAPE
	2."	HDPE80			2-#2,1-#6	POWER TRANSFOMER 167-XF-00913
	2."	HDPE80			2-#1,1-#6	POWER TRANSFOMER 167-XF-00873
85A	2."	HDPE80				FUTURE POWER TOLL CABINET
	3."	HDPE80				SPARE W/PULL TAPE
00	2."	HDPE80			2-#2,1-#6	POWER TRANSFOMER 167-XF-00913
86	2."	HDPE80				SPARE W/PULL TAPE
07	2."	PVC80			2-#1,1-#6	POWER TRANSFOMER 167-XF-00873
87	2."	PVC80				FUTURE POWER TOLL CABINET

<sup>\*</sup> DEFINITIONS: HDPE80 = SCHEDULE 80 OR SDR 9 HDPE; PVC80 = SCHEDULE 80 PVC; RMC = GALVANIZED RIGID METAL CONDUIT.

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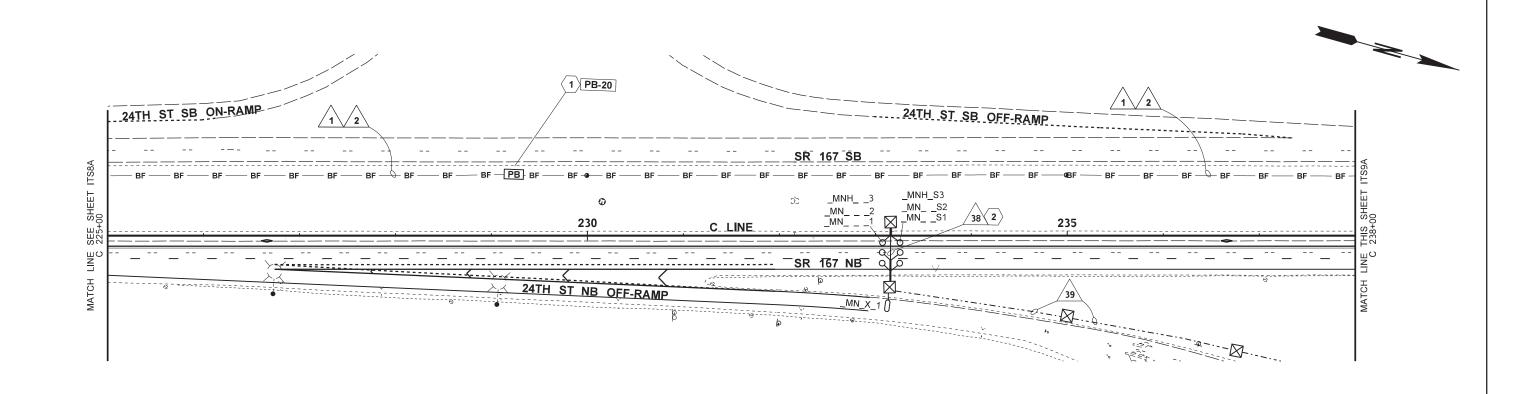


SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS8B 192 OF

357 SHEETS

ITS PLAN



$\overline{\wedge}$	CONDUIT														
10.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS									
			Α		1-96 SMFO	MAINLINE FIBER									
4	4" w/ (4) 1"	D) (0.00	DVC00	PVC80	D)/C00	D\/C00	D\/C00	D)/C00	D)/C00	D)/C00	D)/C00	В		1-12 SMFO	DISTRIBUTION FIBER
1	INNERDUCT	F V C 80	С			SPARE W/PULL TAPE									
			D			SPARE W/PULL TAPE									
			Α		1-24 SMFO	TOLL SYSTEM FIBER									
2	4" w/ (4) 1"	PVC80	PVC80	PVC80	В			SPARE W/PULL TAPE							
2	INNERDUCT				F VC 00	F VC00	С			SPARE W/PULL TAPE					
			D			SPARE W/PULL TAPE									
34	2."	PVC80			2-2CS CABLE	VEHICLE DETECTION CABLE									
38	2."	HDPE80			2-2CS CABLE	VEHICLE DETECTION CABLE									
30	2."	HDPE80				SPARE W/PULL TAPE									
39	2."	PVC80			7-2CS CABLE	VEHICLE DETECTION CABLE									

CONS	STRUCTION NOTES					
NO.	DESCRIPTION					
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.					
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.					

0	50	100
	SCALE IN	FEET

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS9
WIRE SCHEDULE	ITS9

PLAN REF NO

ITS9

193 OF 357 SHEETS

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DESIGNED BY	H. GIANG				JOB N	UMBER 526	
ENTERED BY	H. GIANG				100	,526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			



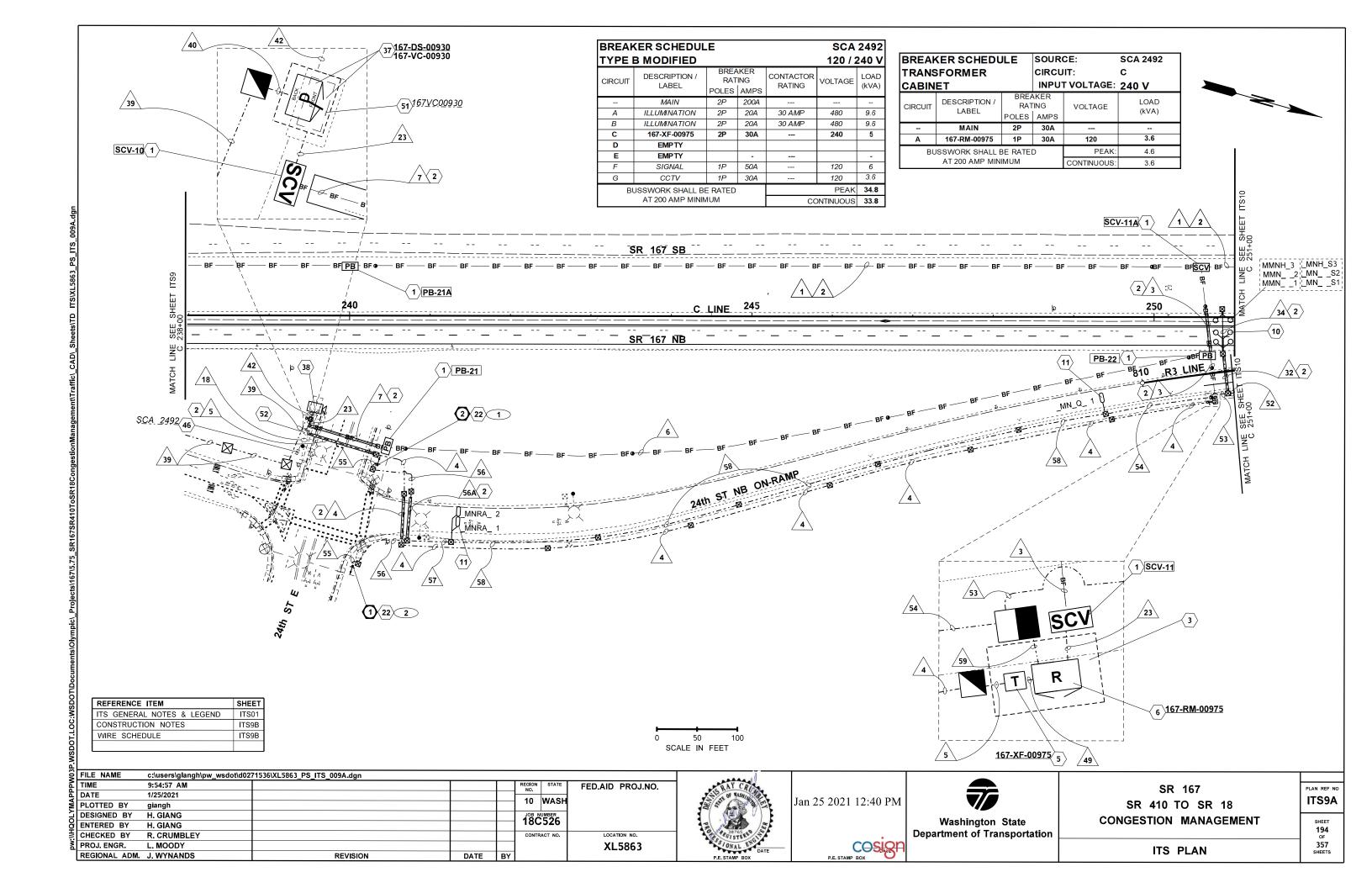
Jan 19 2021 8:27 AM

P.E. STAMP BOX



SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN



NO.	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
5	INSTALL A CABINET WITH A 5 KVA 240/120 VAC TRANSFORMER IN ACCORDANCE WITH STANDARD PLAN J-10.10 AND J-10.25 AND PER TRANSFORMER BREAKER DETAILS <b>ON THIS SHEET</b> .
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
11	INSTALL TYPE WR INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF THE LANE IN ACCORDANCE WITH <b>STANDARD PLAN J-50.12</b> AND PER DETAILS ON <b>SHEET ITD5</b> .
22	INSTALL SIGLE FLASHING BEACON SIGNAL STANDARD FOUNDATION LED BEACON HEAD, AND W3-501 SIGN IN ACCORDANCE WITH <b>STANDARD PLAN J-21.16</b> AND DETAIL <b>SHEET ITS9C</b> .
37	REMOVE EXISTING ITS SINGLE CABINET FOUNDATION AND CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10. INSTALL A 334D DATA STATION WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
38	REPLACE EXISTING CCTV AND CAMERA CABLE WITH A NEW CCTV AND CABLE.
46	INSTALL 30A CIRCUIT BREAKER AS SHOW BREAKER SCHEDULE ON THIS SHEET TO POWER THE RAMP METER CABINET.
51	REMOVE EXITING CCTV EQUIPMENT INSIDE THE CABINETAND DELIVER TO WSDOT SIGNAL SHOP. INSTALL NEW CCTV EQUIPMENT PER EQUIPMENT SCHEDULE ON <b>DETAIL SHEET ITD1</b> .
52	INSTALL NEW CONDUIT INTO EXISTING JUNCTION BOX AND USE EXISTING SPARE CONDUIT ROUTE NEW CONDUCTORS TO EXISTING SERVICE CABINET.

FILE NAME	c:\users\glangh\pw_wsdot\d027	71536\XL5863_PS_ITS_09B.dgn					
TIME	11:19:47 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	1/18/2021					WASH	
PLOTTED BY	giangh				10	WASH	
DESIGNED BY	H. GIANG				JOB N	UMBER <b>526</b>	
ENTERED BY	H. GIANG				100	,526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			



Jan 19 2021 8:30 AM

WIRING SCHEDULE CONDUIT

RACEWAY

4" w/ (4) 1"

INNERDUCT

4" w/ (4) 1"

INNERDUCT

2."

3."

2."

2."

2."

2."

Ex. 2."

2."

3."

3."

2."

2."

3."

2."

3."

2."

2."

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3."

Ex. 2."

3."

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2."

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2."

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2."

2."

3."

3."

NO.

2

3

5

6

7

18

23

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32

34

39

42

49

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51

52

53

54

55

56

56A

57

58

59

MATERIAL\* INTERDUCT

PVC80

PVC80

HDPE80

HDPE80

PVC80

HDPE80

HDPE80

PVC80

HDPE80

PVC80

PVC80

PVC80

PVC80

PVC80 PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

RMC

PVC80

PVC80

PVC80

PVC80

RMC

PVC80

HDPE80

HDPE80

PVC80

PVC80

PVC80

PVC80

PVC80

PVC80

В

С

Α

С

D

**NEW CABLE** 

1-96 SMFO 1-12 SMFO

1-24 SMFO

2-12 SMFO

3-#2

3-#2

2-12 SMFO

2-12 SMFO

3-#2

2-12 SMFO

1-2CS CABLE

6-2CS CABLE

2-2CS CABLE

7-2CS CABLE

7-2CS CABLE

1-CAT 6

3-#8

3-#8

1-5C

1-5C, 4-2CS

1-5C

10-2CS

2-2C, 3-2CS

1-2C

1-2C

1-2C

2-2C

2-2C, 2-2CS

1-5C

13-2CS

2-2C



## SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT**

REMARKS

MAINLINE FIBER

**DISTRIBUTION FIBER** 

SPARE W/PULL TAPE

SPARE W/PULL TAPE

**TOLL SYSTEM FIBER** 

SPARE W/PULL TAPE

SPARE W/PULL TAPE

SPARE W/PULL TAPE

**DISTRIBUTION FIBER (SR 410)** 

SPARE W/PULL TAPE

POWER FROM SERVICE TO RM POWER FROM SERVICE TO RM

SPARE W/PULL TAPE

**DISTRIBUTION FIBER (SR 167 SB)** 

**DISTRIBUTION FIBER (SR 167 SB)** 

240V- POWER TRANSFOMER

PRE-TERMINATED SMFO CABLE

SPARE W/PULL TAPE SPARE W/PULL TAPE

VEHICLE DETECTION CABLE

**VEHICLE DETECTION CABLE** 

SPARE W/PULL TAPE

**VEHICLE DETECTION CABLE** 

SPARE W/PULL TAPE

VEHICLE DETECTION CABLE

VEHICLE DETECTION CABLE

SPARE W/PULL TAPE

SPARE W/PULL TAPE

REMOVE EXISTING CCTV CABLE

POWER TRANSFOMER TO CABINET

SPARE W/PULL TAPE

ILLUMINATION FOR RM

RM SIGNAL VEHICLE DISPLAY

VEHICLE DISPLAY, LOOPS

VEHICLE DISPLAY

LOOPS WIRE

FLASHING BEACON, LOOP

FLASHING BEACON

FLASHING BEACON

FLASHING BEACON

SPARE W/PULL TAPE

FLASHING BEACON

FLASHING BEACON, LOOP

**VEHICLE DISPLAY** 

LOOPS WIRE

FLASHING BEACON, LOOP

SPARE W/PULL TAPE

PLAN REF NO ITS9B 195

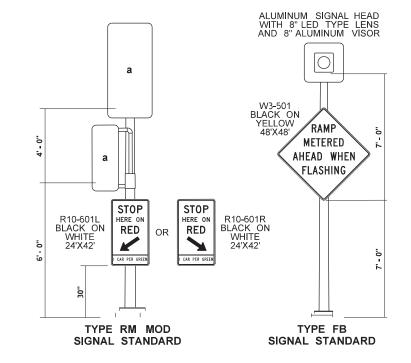
357 SHEETS

ITS PLAN

NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
5	INSTALL A CABINET WITH A 5 KVA 240/120 VAC TRANSFORMER IN ACCORDANCE WITH STANDARD PLAN J-10.10.25 AND PER TRANSFORMER BREAKER DETAILS <b>ON THIS SHEET</b> .
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CAB EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
10	INSTALL TYPE R1S SPEED LOOPS IN ACCORDANCE WITH STANDARD PLAN J-50.13.
11	INSTALL TYPE WR INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF THE LANE IN ACCORDANCE WITH ST PLAN J-50.12 AND PER DETAILS ON SHEET ITD5.
22	INSTALL SIGLE FLASHING BEACON SIGNAL STANDARD FOUNDATION LED BEACON HEAD, AND W3-501 SIGN IN ACCORDANCE WITH <b>STANDARD PLAN J-21.16</b> AND DETAIL <b>SHEET ITS9C</b> .
37	REMOVE EXISTING ITS SINGLE CABINET FOUNDATION AND CONSTRUCT A TWO CABINET FOUNDATION IN ACCUMITH STANDARD PLAN J-10.10. INSTALL A 334D DATA STATION WITH 8" ALUMINUM RISER. INSTALL ASSOCIAT CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
38	REPLACE EXISTING CCTV AND CAMERA CABLE WITH A NEW CCTV AND CABLE.
46	INSTALL 30A CIRCUIT BREAKER AS SHOW BREAKER SCHEDULE ON <b>THIS SHEET</b> TO POWER THE RAMP METE CABINET.
51	REMOVE EXITING CCTV EQUIPMENT INSIDE THE CABINETAND DELIVER TO WSDOT SIGNAL SHOP. INSTALL NE EQUIPMENT PER EQUIPMENT SCHEDULE ON <b>DETAIL SHEET ITD1</b> .
52	INSTALL NEW CONDUIT INTO EXISTING JUNCTION BOX AND USE EXISTING SPARE CONDUIT ROUTE NEW COND TO EXISTING SERVICE CABINET.

## SIGNAL DISPLAY NOTES

- 1. ALL VEHICLE HEADS SHALL BE ALUMINUM.
- 2. ALL LENSES SHALL BE 12" LED TYPE, WITH THE EXCEPTION OF THE LOWER SIGNAL HEAD ON THE TYPE RM SIGNAL, WHICH SHALL BE 8" LED TYPE.
- 3. ALL VISORS SHALL BE 12" ALUMINUM TUNNEL TYPE, WITH THE EXCEPTION OF THE LOWER SIGNAL HEAD ON THE TYPE RM SIGNAL, WHICH SHALL BE 8" ALUMINUM TYPE.
- 4. ALL DISPLAYS SHALL INCLUDE BACKPLATES, DO NOT INSTALL RETROREFLECTIVE TAPE ON RAMP METERS.



	SIGNAL STANDARD DETAIL CHART																																			
STD. No.																					SIGNAL MAST ARM DATA MOUNTING		ATA		•	$\overline{1}$		POLE ATTACHMENT	FOUNDATION	SOIL BEARING	FOUNDATION DEPTHS (FT)					
	SR No.		FIELD LC	CATION	!		TYPE	HEIGHT (FT)		Q TO ATT			WIND	LOAD AR	EAS (FT	<sup>-2</sup> ) (X)(Y)	POLE XYZ (FT³)	POINT AI		DESIGN  XYZ (FT³)	PRESSURE (PSF)		ALTERNATE	1	ALTER	RNATE 2	REMARKS									
		STATION	OFFSET	LT RT	ELEV. *	P.O.A.		A1	B1	B2	В3	B4	B1	B2	B3	B4		E1	Н			3' RD.	3' SQ.	4' RD.	3' RD.	4' RD.										
1	167	C 240+05	311	X			FB																													
2	167	C 240+35	185	X			FB																													
3	167	R3 812+52	18	X			RM																													

\* IF NO ELEVATION GIVEN, FOUNDATION TOP ELEVATION SHALL BE LEVEL WITH EXISTING GROUND.

LEVEL WITH THE ADJACENT SIDEWALK OR ROADWAY, FOUNDATION TOP SHALL BE LEVEL WITH THE ADJACENT SIDEWALK OR ROADWAY.

FILE NAME c:\users\glangh\pw\_wsdot\d0271536\XL5863\_PS\_ITS\_09C.dgn TIME 11:19:54 PM REGION NO. FED.AID PROJ.NO. DATE 1/18/2021 10 WASH PLOTTED BY giangh DESIGNED BY H. GIANG 18C526 ENTERED BY H. GIANG CHECKED BY R. CRUMBLEY CONTRACT NO. LOCATION NO. XL5863 PROJ. ENGR. L. MOODY DATE BY REGIONAL ADM. J. WYNANDS REVISION



Jan 19 2021 8:31 AM

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SR 167 SR 410 TO SR 18

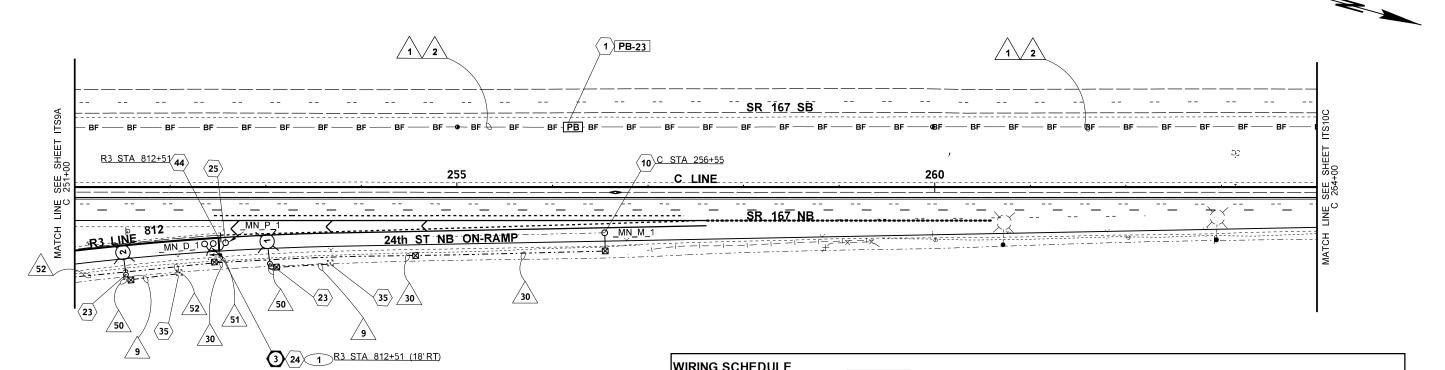
ITS9C 196 357 SHEETS

PLAN REF NO

**24TH ST** 

ITS PLAN

**CONGESTION MANAGEMENT** 



CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
10	INSTALL TYPE 3 INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF THE LANE IN ACCORDANCE WITH <b>STANDARD PLAN J-50.12</b> .
23	INSTALL NEW LIGHT STANDARD AND FOUNDATION PER LIGHT STANDARD <b>SCHEDULE BELOW</b> .
24	CONSTRUCT FOUNDATION AND INSTALL RM SIGNAL STANDARD WITH SLIP BASE IN ACCORDANCE WITH STANDARD PLAN J-22.15 AND DETAIL ON SHEET ITS9C.
25	INSTALL TYPE RS3 STOP LINE LOOP ARRAY IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> .
35	INSTALL NEW CONDUIT AND CONDUCTORS IN EXISTING TYPE 1 JUNCTION BOX. SPLICE NEW ILLUMINATION CIRCUIT TO EXISTING ILLUMINATION CIRCUIT.
44	INSTALL 18 INCH WIDE TYPE D PLASTIC STOP LINE IN ACCORDANCE WITH STANDARD PLAN M-24.60

WIRING	G SCHEDUL	E				
$\overline{\wedge}$	CONDUIT					
NO.	RACEWAY		INTERDUCT	EXISTING CABLE	NEWCABLE	REMARKS
			Α		1-96 SMFO	MAINLINE FIBER
4	4" w/ (4) 1"	PVC80	В		1-12 SMFO	DISTRIBUTION FIBER
1 INNERDUC		PVC00	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α		1-24 SMFO	TOLL SYSTEM FIBER
2	4" w/ (4) 1" INNERDUCT	B)/Con	В			SPARE W/PULL TAPE
2		PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
9	2."	PVC80			3-#8	ILLUMINATION FOR RM
30	2."	PVC80			1-2CS CABLE	VEHICLE DETECTION CABLE
34	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE
50	1."	PVC80			3-#8	ILLUMINATION FOR RM
51	2."	RMC			1-5C	RM SIGNAL VEHICLE DISPLAY
52	2."	PVC80			1-5C, 4-2CS	VEHICLE DISPLAY, LOOPS
53	2."	PVC80			1-5C	VEHICLE DISPLAY

LIGHT ST	ANDAR	D SCHED	ULE								24TH ST
LT STD NUMBER	CIRCUIT	LOCAT STATION		TYPE - DISTRIBUTION - WATTAGE	WATTAGE (HPS EQUIVALENT)	MAST ARM	H1	BASE TYPE	FOUNDATION STANDARD PLAN & CASE	FOUNDATION TYPE (J-28.30)	COMMENTS
1	В	R3 813+02	31' RT	III - MEDIUM CUTOFF	LED (250 WATT) HPS EQUIVALENT	16'	30'	SLIP BASE	J-28.22 CASE A	В	
2	В	R3 811+50	30' RT	III - MEDIUM CUTOFF	LED (250 WATT) HPS EQUIVALENT	16'	30'	SLIP BASE	J-28.22 CASE A	В	

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	SCALE	IN	FEET	

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS10
WIRE SCHEDULE	ITS10

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DATE	1/26/2021					14/4 011	
PLOTTED BY	glangh				10	WASH	
DESIGNED BY	H. GIANG					UMBER	
ENTERED BY	H. GIANG				180	526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			



Jan 26 2021 11:38 AM

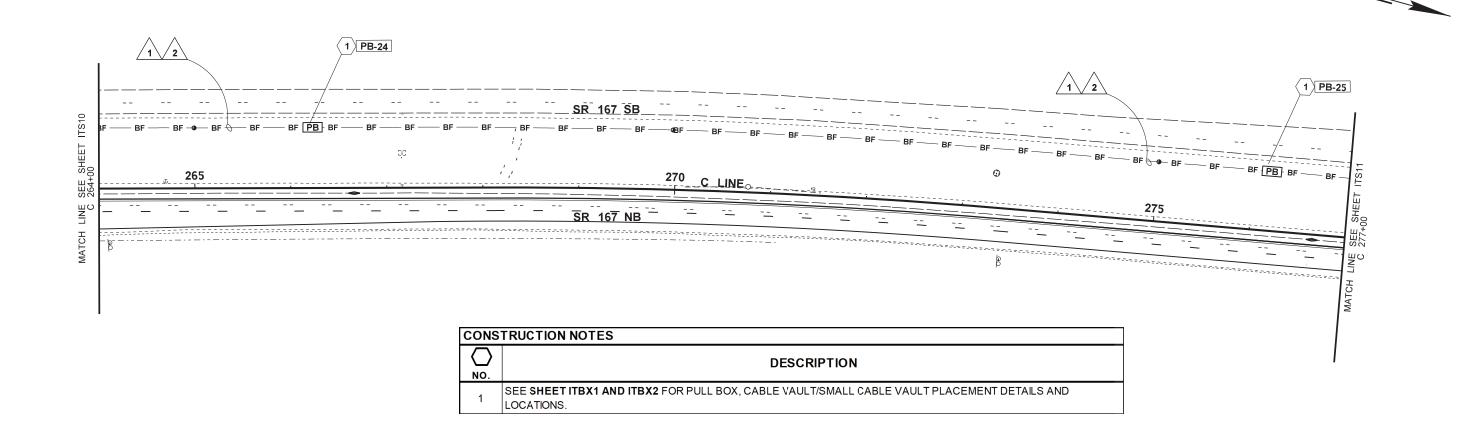


SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

SHEET
197
OF
357
SHEETS

ITS10



WIRING	WIRING SCHEDULE									
No.	CONDUIT		INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS				
			Α		1-96 SMFO	MAINLINE FIBER				
1	4" w/ (4) 1"	PVC80	В		1-12 SMFO	DISTRIBUTION FIBER				
1	INNERDUCT	PVC80	PVC80	С			SPARE W/PULL TAPE			
			D			SPARE W/PULL TAPE				
			Α		1-24 SMFO	TOLL SYSTEM FIBER				
2	4" w/ (4) 1"	DVC 90	В			SPARE W/PULL TAPE				
2	INNERDUCT	PVC80	С			SPARE W/PULL TAPE				

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS10A
WIRE SCHEDULE	ITS10A

8	FILE NAME	c:\users\glangh\pw_wsdot\d02	71536\XL5863_PS_ITS_010A.dgn						
ğ	TIME DATE PLOTTED BY	11:20:05 PM				REGION NO.	STATE	FED.AID PROJ.NO.	
4	DATE	1/18/2021					WASH		
⋛	PLOTTED BY	giangh				10	WASH		
Ž	DESIGNED BY	H. GIANG				JOB N	UMBER <b>526</b>		
ğ	DESIGNED BY ENTERED BY	H. GIANG				100	526		
Ĭ	CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.	
	PROJ. ENGR.	L. MOODY						XL5863	
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				



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Jan 19 2021 8:33 AM



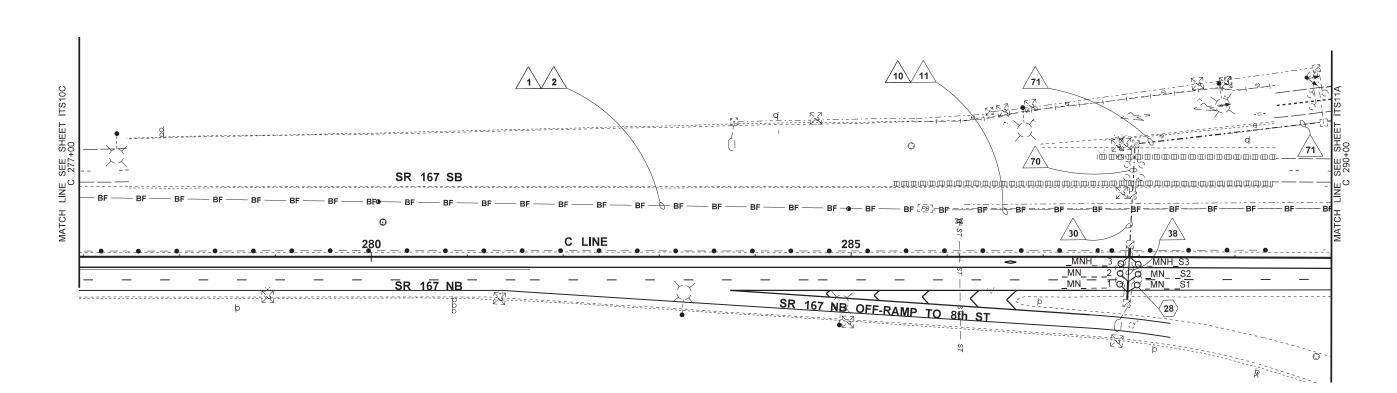
SR 167	
SR 410 TO SR 18	
CONGESTION MANAGEMENT	

TION MANAGEMENT

198
OF
357
SHEETS

ITS10A

COSIST P.E. STAMP BOX



CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
28	REMOVE EXISTING LEAD-IN CABLES, ABANDON EXISTING LOOPS. INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF THE LANE TO EXISTING 2CS IN ACCORDANCE WITH STANDARD PLAN J-50.13. INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.

Λ	CONDUIT						
NO.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	GROUND (#8)	REMARKS
			Α		1-96 SMFO		MAINLINE FIBER
1	4" w/ (4) 1"	PVC80	В		1-12 SMFO		DISTRIBUTION FIBER
•	INNERDUCT	F VC 60	С				SPARE
			D			1	LOCATE WIRE
	4" 14/ (4) 4"		Α		1-24 SMFO		TOLL SYSTEM FIBER
2	4" w/ (4) 1" INNERDUCT	PVC80	B, C				SPARE
	INNERDOCT		D			1	LOCATE WIRE
			Α		1-96 SMFO		MAINLINE FIBER
10	4" w/ (4) 1"	PVC80	В		1-12 SMFO		DISTRIBUTION FIBER
10	INNERDUCT	FVC80	С				SPARE
			D			1	LOCATE WIRE
	411 / (4) - 411		Α		1-24 SMFO		TOLL SYSTEM FIBER
11	4" w/ (4) 1" INNERDUCT	PVC80	B, C				SPARE
	INNERDOCT		D			1	LOCATE WIRE
30	Ex. 2."	PVC80		5-2CS	2-2CS CABLE		VEHICLE DECTECTION CABLE
38	Ex. 2."	PVC80		3-2CS	2-2CS CABLE		VEHICLE DECTECTION CABLE
70	Ex. 2."	PVC80		7-2CS	2-2CS CABLE		VEHICLE DECTECTION CABLE
71	Ex. 2."	PVC80		9-2CS	2-2CS CABLE		VEHICLE DECTECTION CABLE

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Ω		50		1
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	SCALE	IN	FEET	

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS11
WIRE SCHEDULE	ITS11

PLAN REF NO

ITS11

SHEET 199 OF 357 SHEETS

FILE NAME	c:\users\glangh\pw_wsdot\d02	71536\XL5863_PS_ITS_011.dgn					
TIME	11:20:09 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	1/18/2021				10	WASH	
PLOTTED BY	giangh				10	WASH	
DESIGNED BY	H. GIANG				JOB N	UMBER 526	
ENTERED BY	H. GIANG				100	,526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			

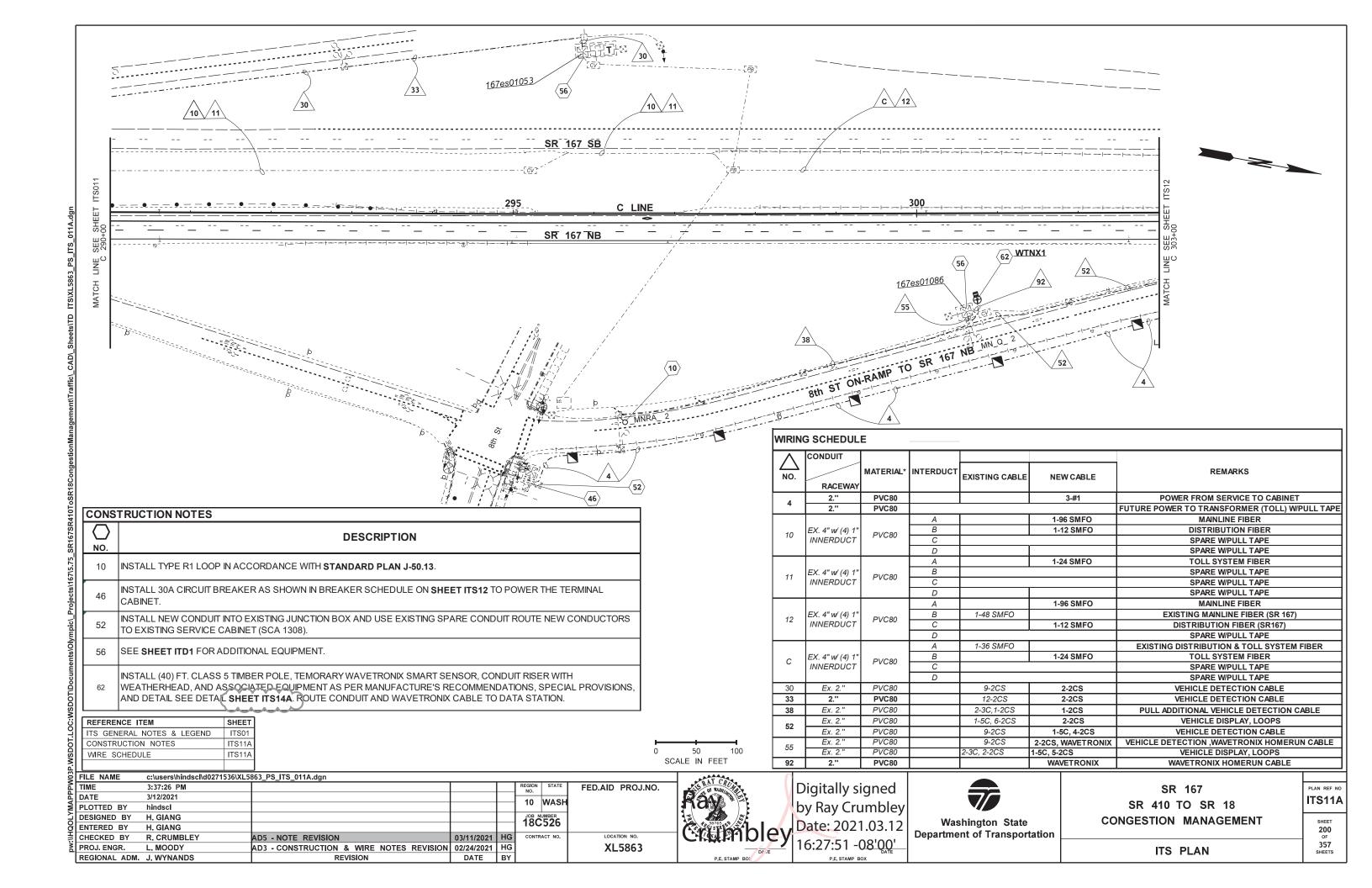


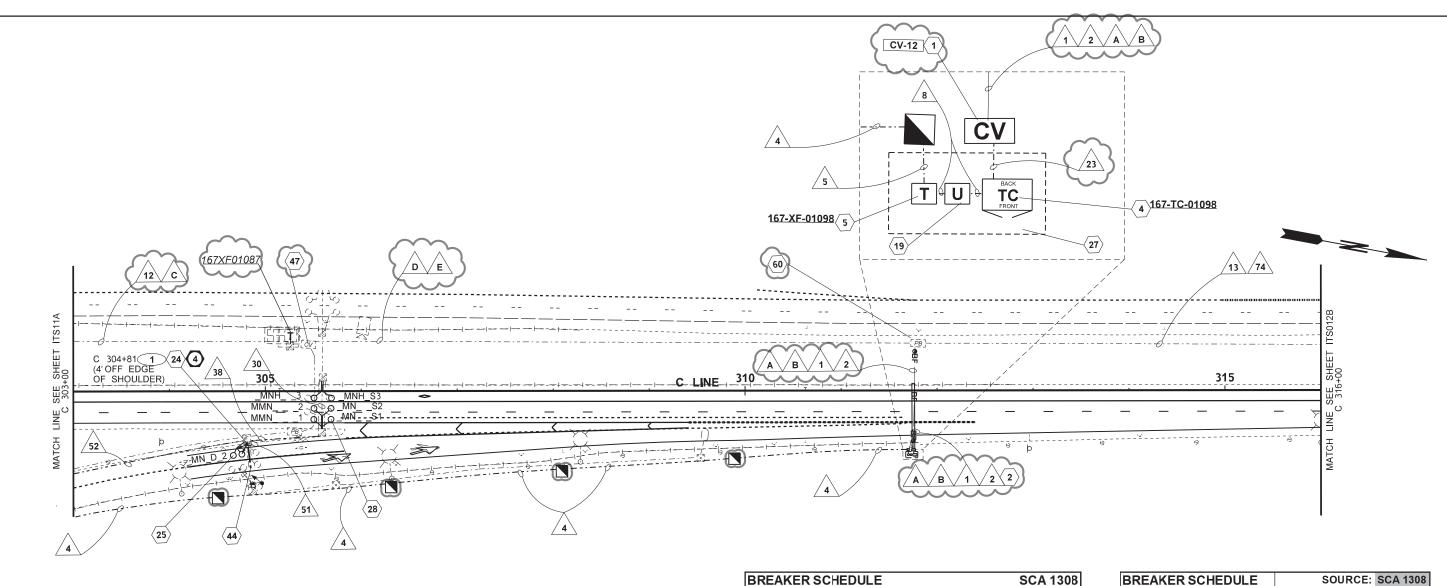
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Washington State Department of Transportation	
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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN





	KER SCHEDUI B MODIFIED	-E		•	SCA 120 / 2	
CIRCUIT	DESCRIPTION / LABEL	BREA RAT POLES		CONTACTOR RATING	VOLTAGE	LOAD (kVA)
	MAIN	2P	200A			-
Α	ILLUMINATION	2P	20A	30 AMP	480	9.6
В	ILLUMINATION	2P	20A	30 AMP	480	9.6
С	167-XF-01087	2P	30A		240	5
D	167-XF-01098	2P	30A		240	5
Е	EMPTY		-			-
F	ILLUMINATION	1P	20A	30 AMP	120	6
G	ILLUMINATION	1P	20A	30 AMP	120	3.6
F	NB RM SIGNAL	1P	30A		120	6
F	SB RM SIGNAL	1P	30A		120	6
G	CCTV	1P	30A		120	3.6
ВІ	JSSWORK SHALL B	E RATED			PEAK	39.8
	AT 200 AMP MINII	MUM		CC	NTINUOUS	38.8

BREAK	(ER SCHEDU	JLE		SOURCE:	SCA 1308		
TRANS	FORMER		CIRCUIT: D				
CABIN	ET		INPUT VOLTAGE: 240 V				
CIRCUIT	DESCRIPTION / LABEL	BREA RAT POLES		VOLTAGE	LOAD (kVA)		
	MAIN	2P	30A				
1	167-TC-01098	1P	20A	120	2.5		
BU	SSWORK SHALL E	BE RATE	)	PEAK:	3.5		
	AT 200 AMP MIN	IMUM		CONTINUOUS:	2.5		

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS12A
WIRE SCHEDULE	ITS12A

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	SCALE IN	FEET

SIFILE NAME	c:\users\glangh\pw_wsdot\d0271536\XL5863_PS_ITS_012.dgn								
TIME	11:14:00 PM				REGION STATE	FED.AID PROJ.NO.			
DATE	3/2/2021				10 WASH				
PLOTTED BY	giangh				IU WASH				
DESIGNED BY	H. GIANG				18C526				
ENTERED BY	H. GIANG				100320				
CHECKED BY	R. CRUMBLEY				CONTRACT NO.	LOCATION NO.			
PROJ. ENGR.	L. MOODY	AD3 - CONSTRUCTION & WIRE NOTES REVISION	02/24/2021	HG		XL5863			
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY					



Digitally signed by Ray Crumbley Date: 2021.03.03 08:45:43 -08'00'

Washington State
enartment of Transportati

SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN

PLAN REF NO

ITS12

CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
4	INSTALL A 334D TERMINAL CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL <b>SHEET ITD1</b> .
5	INSTALL A CABINET WITH A 3.5 KVA 240/120 VAC TRANSFORMER IN ACCORDANCE WITH STANDARD PLAN J-10.10 AND J-10.25 AND PER TRANSFORMER BREAKER DETAILS <b>ON SHEET ITS12</b> .
19	INSTALL A UPS (UNINTERRUPTIBLE POWER SUPPLY) AND 8 BACKUP BATTERIES. SEE <b>SHEET ITD7</b> FOR ADDITIONAL DETAILS.
24	CONSTRUCT FOUNDATION AND INSTALL RM SIGNAL STANDARD WITH SLIP BASE IN ACCORDANCE WITH STANDARD PLAN J-22.15 AND DETAIL ON SHEET ITS09C.
25	INSTALL TYPE R2 DEMAND LOOP ARRAY IN ACCORDANCE WITH THE TYPE R3S STOP LINE LOOP ARRAY IN <b>STANDARD PLAN J-50.13.</b> INSTALL 2CS TO THE RAMP METER CABNET.
27	CONSTRUCT A THREE CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
28	ABANDON EXISTING LOOPS. INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF EACH LANE AND SPLICE TO NEW 2CS CABLES IN ACCORDANCE WITH STANDARD PLAN J-50.13. INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.
44	INSTALL 18 INCH WIDE TYPE D PLASTIC STOP LINE IN ACCORDANCE WITH STANDARD PLAN M-24.60
47	CUT EXISTING 48 AND 36 SMFO PRESERVING CABLE TO RESPLICE. PULL EXISTING CABLES NORTH TO PULLBOX AT STATION 312 AND INSTALL THROUGH NEW CONDUIT TO CABLE VAULT ADJACENT TO 167TC01098 CABINET. SPLICE NEW 36 SMFO INTO EXISTING 36 SMFO DISTRIBUTION CABLES. SEAL END OF THE EXISTING 48 SMFO.
60	INSTALL NEW CONDUIT INTO EXISTING PULL BOX. GROUT AROUND CONDUIT ENTRY HOLES TO PROVIDE WATER TIGHT SEAL.

$\wedge$	CONDUIT					
$\triangle$		MATERIAI *	INNERDUCT			REMARKS
NO.	RACEWAY			EXISTING CABLE	NEW CABLE	Name and
			Α		1-96 SMFO	OR MAINLINE FIBER TO SOUTH
1	4" w/ (4) 1"	HDPE80	В		1-12 SMFO	OR DISTRIBUTION FIBER SOUTH
•	INNERDUCT	HDFE00	С		1-36 SMFO	DISTRIBUTION FIBER TO THE SOUTH
			D			SPARE W/PULL TAPE
			A		1-24 SMFO	TOLL SYSTEM FIBER
2	4" w/ (4) 1"	HDPE80	В			
	INNERDUCT		C			SPARE W/PULL TAPE
		D) (0.00	D		0.44	SPARE W/PULL TAPE
4	2."	PVC80			3-#1	POWER FROM SERVICE TO CABINET
	2."	PVC80			0.114	FUTURE POWER TO TRANSFORMER (TOLL) W/PULL TAPE
5	2."	PVC80			3-#1	POWER FROM SERVICE TO CABINET
	2."	PVC80			2 112	SPARE W/PULL TAPE
8	2."	PVC80			2-#8	POWER TRANSFORMER TO CABINET
			A		1-96 SMFO	MAINLINE FIBER
12	EX. 4" w/ (4) 1"	PVC80	В	1-48 SMFO	4.40.0050	EXISTING DISTRIBUTION FIBER (SR 167)
	INNERDUCT		С		1-12 SMFO	DISTRIBUTION FIBER (SR 167)
			D	4 00 01450		SPARE W/PULL TAPE
	EX. 4" w/ (4) 1" INNERDUCT	PV(:80	A	1-36 SMFO		EXISTING DISTRIBUTION & TOLL SYSTEM FIBER SPARE W/PULL TAPE
13			B C			
			D			SPARE WIPULL TAPE
	3."	PVC80	D		2-48 SMFO, 1-24SMFO	SPARE W/PULL TAPE PRE-TERMINATED SMFO CABLE (NWR)
23	3."	PVC80			1-12 SMFO, 1-24SMFO	PRE-TERMINATED SMF0 CABLE (NWK)  PRE-TERMINATED, (OR DISTRIBUTION)
	3."	PVC80			2-48 SMFO	PRE-TERMINATED, (OR DISTRIBUTION)  PRE-TERMINATED SMF0 CABLE (OR)
	3."	PVC80			2-40 SWFO	SPARE W/PULL TAPE
30	Ex. 2."	PVC80		7-2CS	2-2CS	VEHICLE DETECTION CABLE
38	Ex. 2."	PVC80		9-2CS	2-2CS CABLE	PULL ADDITIONAL VEHICLE DETECTION CABLE
51	2."	RMC		0 200	1-5C	RM SIGNAL VEHICLE DISPLAY
	Ex. 2."	PVC80		1-5C, 4-2CS	1-5C, 1-2CS	VEHICLE DISPLAY, LOOPS
52	Ex. 2."	PVC80		9-2CS	2-2CS	VEHICLE DISPLAY, LOOPS
		, , , , ,	Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)
	EX. 4" w/ (4) 1"		В	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		SPARE W/PULL TAPE
74	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167 NORTH)
	4" w/ (4) 1"	LIBBERS	В			SPARE W/PULL TAPE
Α	INNERDUCT	HDPE80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α	1-36 SMFO		EXISTING DISTRIBUTION AND TOLL SYSTEM FIBER
D	4" w/ (4) 1"	HDPE80	В			SPARE W/PULL TAPE
В	INNERDUCT	חטיבטט	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α	1-36SMFO		EXISTING DIRTRIBUTION AND TOLL SYSTEM FIBER
С	EX. 4" w/ (4) 1"	PVC80	В		1-24 SMFO	TOLL SYSTEM FIBER
	INNERDUCT	, , , , ,	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α		1-96 SMFO	MAINLINE FIBER
D	EX. 4" w/ (4) 1"	PVC80	В	1-48 SMFO		PULL BACK TO STATION 312
_	INNERDUCT	, , , , ,	С		1-12 SMFO	DISTRIBUTION FIBER
			D			SPARE W/PULL TAPE
			Α	1-36 SMFO		PULL BACK TO STATION 312
E	EX. 4" w/ (4) 1"	PVC80	В		1-24 SMFO	TOLL SYSTEM FIBER
	INNERDUCT		С		1-36 SMFO	DISTRIBUTION FIBER TO 8TH ST
			l D			SPARE W/PULL TAPE

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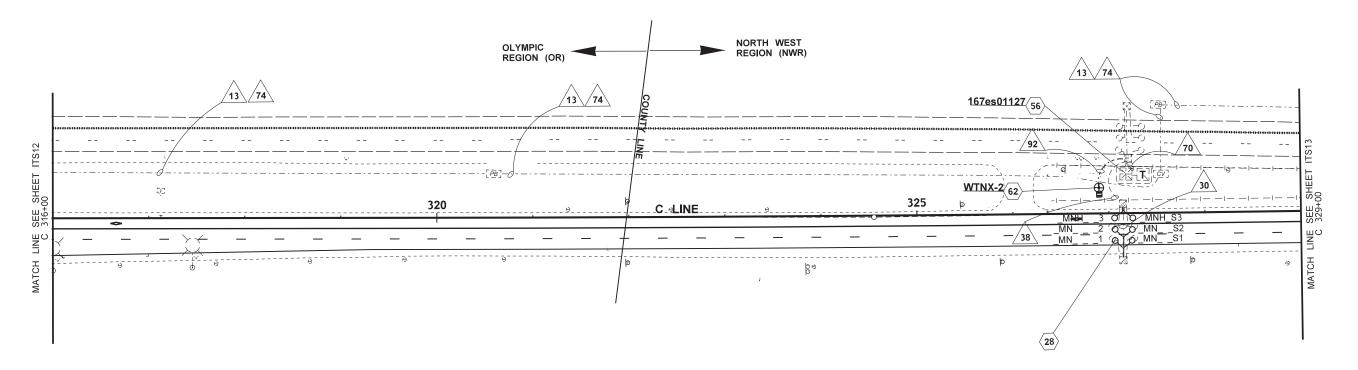
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

PLAN REF NO ITS12A

CONS	TRUCTION NOTES
NO.	DESCRIPTION
28	ABANDON EXISTING LOOPS. INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF EACH LANE AND SPLICE TO EXISTING 2CS CABLES IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> . INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.
56	SEE SHEET ITD1 FOR ADDITIONAL EQUIPMENT.
62	INSTALL (40) FT. CLASS 5 TIMBER POLE, TEMPORARY WAVETRONIX SMART SENSOR, CONDUIT RISER WITH WEATHERHEAD, AND ASSOCIATED EQUIPMENT AS PER MANUFACTURER'S RECOMMENDATIONS, SPECIAL PROVISIONS, AND DATA STATION DETAIL SHEET ITS14A.

WIRING SCHEDULE								
$\overline{}$	CONDUIT							
NO.		MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS		
	RACEWAY							
			Α	1-36 SMFO		EXISTING DISTRIBUTION & TOLL SYSTEM FIBER		
7.3	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE		
	INNERDUCT	PVC80	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
30	Ex. 2."	PVC80		2-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
38	Ex. 2."	PVC80		4-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
70	Ex. 2."	PVC80		4-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
70	Ex. 2."	PVC80		6-2CS	WAVETRONIX	VEHICLE DETECTION, WAVETRONIX HOMERUN CABLE		
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)		
74	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE		
/4	INNERDUCT	FVC80	С			SPARE W/PULL TAPE		
			D		·	SPARE W/PULL TAPE		
92	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE		



REFERENCE ITEM	SHEET	
ITS GENERAL NOTES & LEGEND	ITS01	
CONSTRUCTION NOTES	ITS12B	
WIRE SCHEDULE	ITS12B	

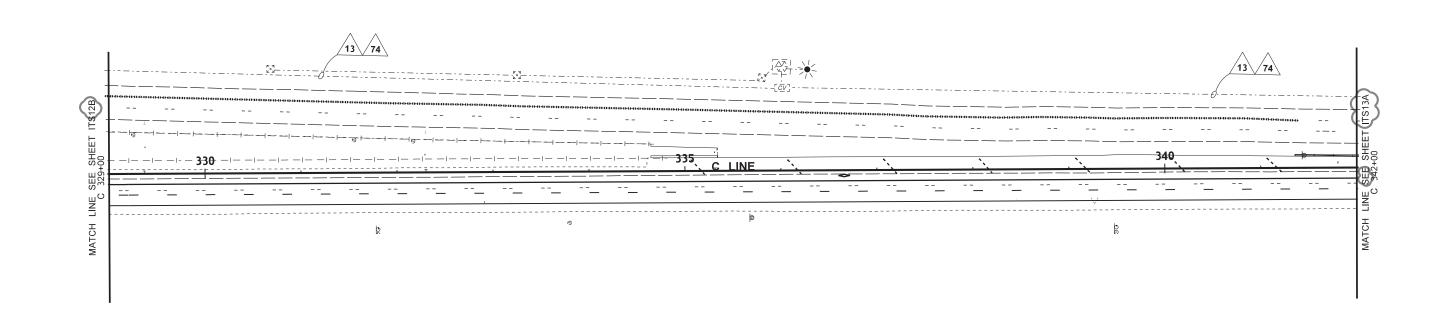
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SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT ITS PLAN

PLAN REF NO ITS12B



WIRING SCHEDULE						
	CONDUIT					
NO.		MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
	RACEWAY					
			Α	1-36 SMFO		<b>EXISTING DISTRIBUTION &amp; TOLL SYSTEM FIBER</b>
13	EX.4" w/ (4) 1" INNERDUCT	PVC80	В			SPARE W/PULL TAPE
13		PVCOU	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)
7.4	EX.4" w/ (4) 1" INNERDUCT	1"	В			SPARE W/PULL TAPE
74		PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE

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REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
WIRE SCHEDULE	ITS13

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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

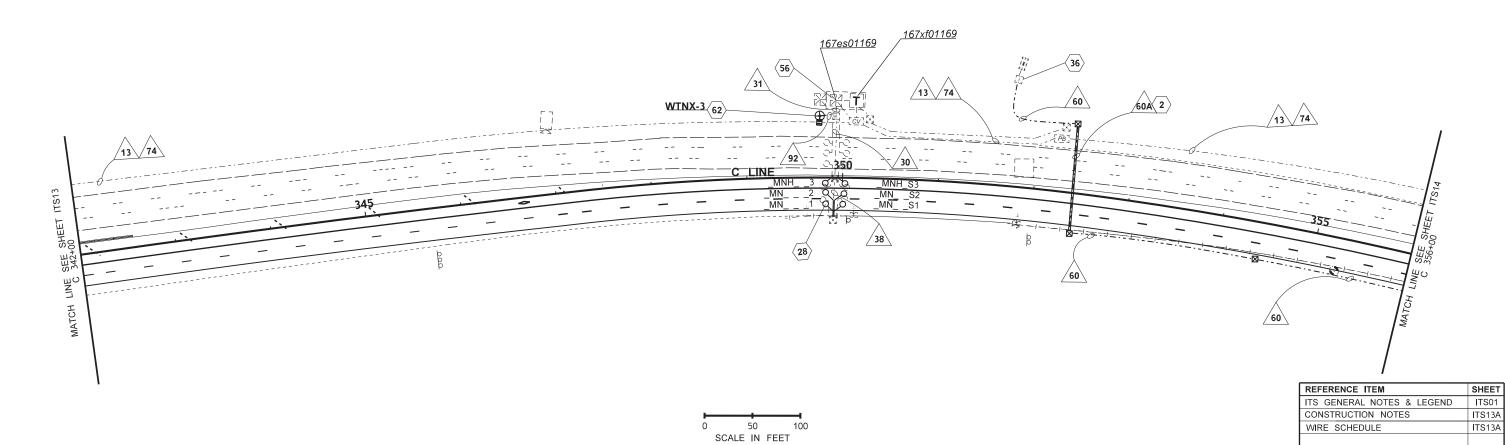
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ITS13



CONS	CONSTRUCTION NOTES					
NO.	DESCRIPTION					
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.					
28	ABANDON EXISTING LOOPS. INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF EACH LANE AND SPLICE TO EXISTING 2-CS CABLES IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> . INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.					
36	INSTALL NEW CONDUIT INTO EXISTING JUNCTION BOX.					
56	SEE <b>SHEET ITD1</b> FOR ADDITIONAL EQUIPMENT.					
62	INSTALL (40) FT. CLASS 5 TIMBER POLE, TEMPORARY WAVETRONIX SMART SENSOR, CONDUIT RISER WITH WEATHERHEAD, AND ASSOCIATED EQUIPMENT AS PER MANUFACTURER'S RECOMMENDATIONS, SPECIAL PROVISIONS, AND DATA STATION DETAIL SHEET ITS14A.					

WIRING SCHEDULE						
$\overline{}$	CONDUIT					
NO.	RACEWAY	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
			Α	1-36 SMFO		<b>EXISTING DISTRIBUTION &amp; TOLL SYSTEM FIBER</b>
13	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
13	INNERDUCT	F V C 60	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
30	Ex. 2."	PVC80		6-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE
	2."	PVC80			1-CAT 6	CCTV CABLE
31	2.''	PVC80			5-2CS CABLE	VEHICLE DETECTION CABLE
31	3."	PVC80				SPARE
	3."	PVC80				SPARE
38	Ex. 2."	PVC80		2-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE
60	2."	PVC80			EMPTY	FUTURE POWER TO TRANSFORMER
60A	2."	HDPE80			EMPTY	FUTURE POWER TO TRANSFORMER
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)
74	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
/4	INNERDUCT	FVC80	С			SPARE W/PULL TAPE
			D		-	SPARE W/PULL TAPE
92	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE



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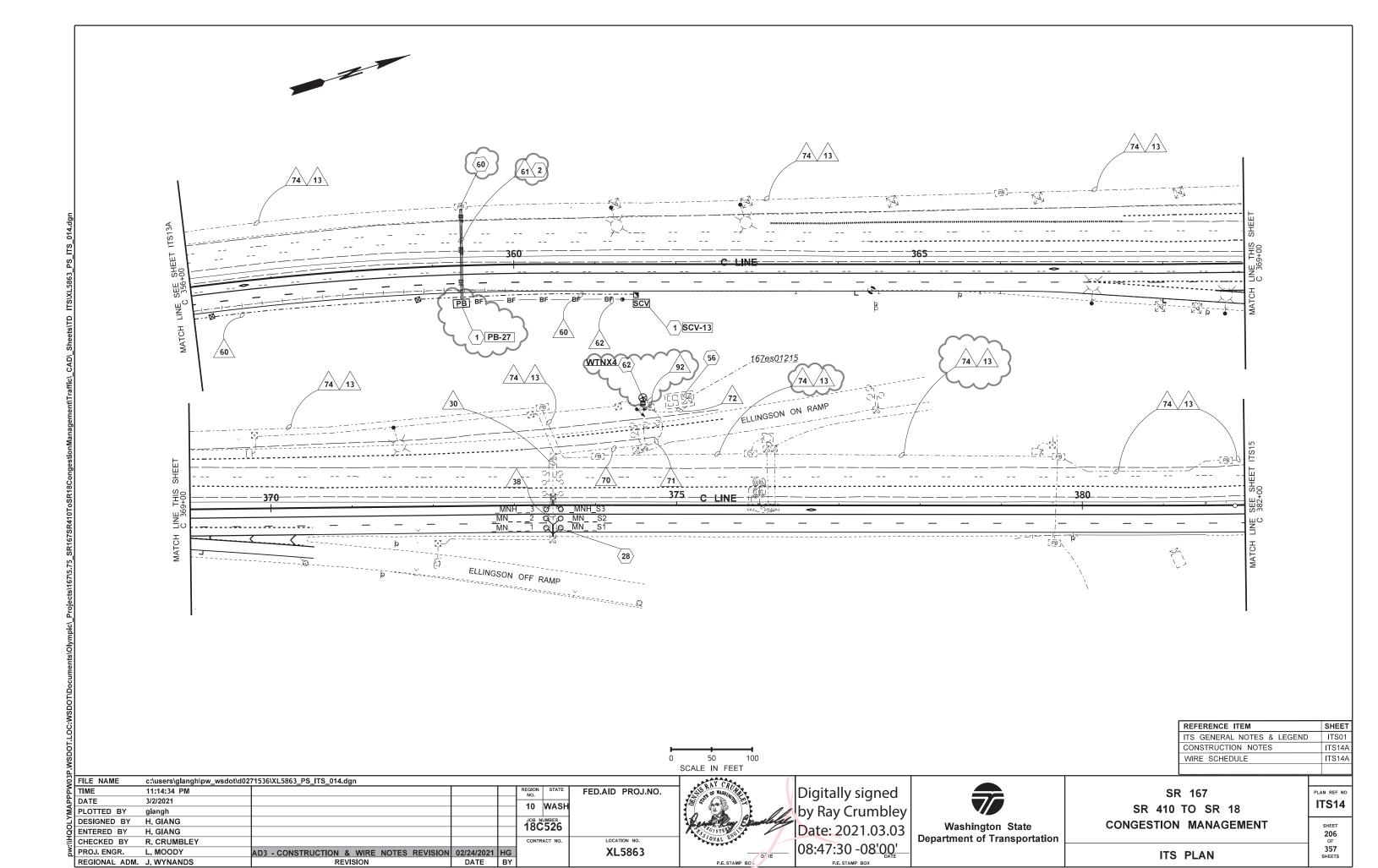
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Washington State
Department of Transportation

SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

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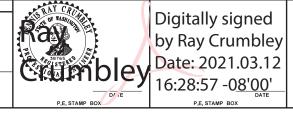


REGIONAL ADM. J. WYNANDS

CONS	CONSTRUCTION NOTES					
NO.	DESCRIPTION					
1	SEE SHEET <b>ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.					
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.					
28	ABANDON EXISTING LOOPS, INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF EACH LANE AND SPLICE TO NEW 2CS CABLES IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> . INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.					
56	SEE <b>SHEET ITD1</b> FOR ADDITIONAL EQUIPMENT.					
60	INSTALL NEW CONDUIT INTO EXISTING CABLE VAULT. GROUT AROUND CONDUIT ENTRY HOLES TO PROVIDE WATER TIGHT SEAL.					
62	INSTALL (40) FT. CLASS 5 TIMBER POLE, TEMORARY WAVETRONIX SMART SENSOR, CONDUIT RISER WITH WEATHERHEAD, AND ASSOCIATED EQUIPMENT AS PER MANUFACTURE'S RECOMMENDATIONS, SPECIAL PROVISIONS, AND DETAIL SEE DETAIL SHEET ITS14A. ROUTE CONDUIT AND WAVETRONIX CABLE TO DATA STATION.					
•						

WIRING SCHEDULE								
NO.	CONDUIT	MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS		
			Α	1-36 SMFO		EXISTING DISTRIBUTION & TOLL SYSTEM FIBER		
40	EX. 4" w/ (4) 1"	51/000	В		•	SPARE		
13	INNERDUCT	PVC80	С			SPARE		
			D			SPARE		
30	Ex. 2."	PVC80		7-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
38	Ex. 2."	PVC80		3-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
60	2."	PVC80			EMPTY	FUTURE POWER TO TRANSFORMER		
61	2."	HDPE80				SPARE W/PULL TAPE		
61	3."	HDPE80				SPARE W/PULL TAPE		
62	2."	PVC80				SPARE W/PULL TAPE		
70	Ex. 2."			2-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
70	Ex. 2."	PVC80		9-2CS		VEHICLE DETECTION CABLE		
	Ex. 2."	PVC80				SPARE		
71	Ex. 2."	PVC80		8-2CS		VEHICLE DETECTION CABLE		
	Ex. 2."	PVC80		4-2CS	2-2CS	VEHICLE DETECTION CABLE		
	Ex. 2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE		
72	Ex. 2."	PVC80		2-3CS, 1-5C, 1-2CS		VEHICLE DETECTION CABLE/RAMP METER		
12	Ex. 2."	PVC80		9-2CS		VEHICLE DETECTION CABLE		
	Ex. 2."	PVC80		9-2CS	2-2CS	VEHICLE DETECTION CABLE		
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)		
74	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE		
/4	INNERDUCT	F V C 60	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
92	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE		

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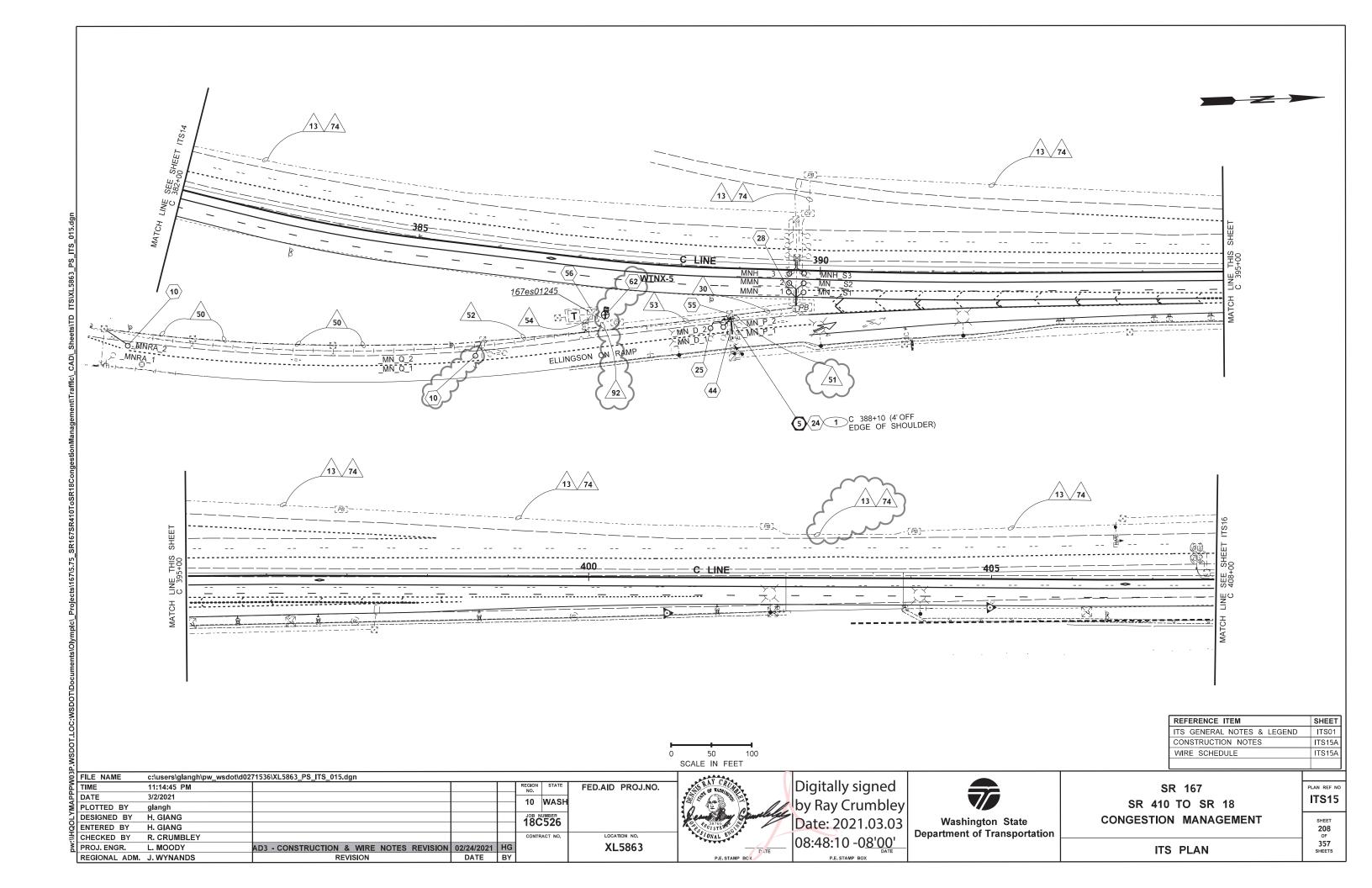




SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

PLAN REF NO ITS14A



CONS	CONSTRUCTION NOTES					
NO.	DESCRIPTION					
10	INSTALL TYPE R1 LOOP IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> .					
24	CONSTRUCT FOUNDATION AND INSTALL RM SIGNAL STANDARD WITH SLIP BASE IN ACCORDANCE WITH STANDARD PLAN J-22.15 AND DETAIL ON SHEET ITS09C.					
25	INTALL TYPE R2 DEMAND LOOP ARRAY IN ACCORDANCE WITH THE TYPE R3S STOP LINE LOOP ARRAY IN <b>STANDARD PLAN J-50.13</b> . INSTALL 2CS TO THE RAMP METER CABINET.					
28	ABANDON EXISTING LOOPS, INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF EACH LANE AND SPLICE TO NEW 2CS CABLES IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> . INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.					
44	INSTALL 18 INCH WIDE TYPE D PLASTIC STOP LINE IN ACCORDANCE WITH <b>STANDARD PLAN M-24.60</b>					
55	TERMINATE NEW CONDUIT IN EXISTING JUNCTION BOX.					
56	SEE <b>SHEET ITD1</b> FOR ADDITIONAL EQUIPMENT.					
62	INSTALL (40) FT. CLASS 5 TIMBER POLE, TEMORARY WAVETRONIX SMART SENSOR, CONDUIT RISER WITH WEATHERHEAD, AND ASSOCIATED EQUIPMENT AS PER MANUFACTURE'S RECOMMENDATIONS, SPECIAL PROVISIONS, AND DETAIL SEE DETAIL SHEET ITS14A. ROUTE CONDUIT AND WAVETRONIX CABLE TO DATA STATION.					

WIRING SCHEDULE								
$\overline{\wedge}$	CONDUIT							
NO.	RACEWAY	MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS		
			Α	1-36 SMFO		<b>EXISTING DISTRIBUTION &amp; TOLL SYSTEM FIBER</b>		
13	EX. 4" W/ (4) 1"	PVC80	В			SPARE W/PULL TAPE		
13	INNERDUCT	PVCOU	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
30	Ex. 2."	PVC80		9-2CS				
30	Ex. 2."	PVC80		2-2CS	2-2CS CABLE	VEHICLE DETECTION CABLE		
50	Ex. 2."	PVC80		2-3C, 1-2CS	1-2CS	VEHICLE DETECTION CABLE		
51	Ex. 2."	RMC			1-5C	RM SIGNAL VEHICLE DISPLAY		
52	Ex. 2."	PVC80		2-3C, 4-2CS,	2-2CS	VEHICLE DISPLAY, LOOPS		
53	Ex. 2."	PVC80		9-2CS		VEHICLE DETECTION CABLE		
55	Ex. 2."	PVC80		1-5C, 6-2CS	1-5C, 3-2CS	VEHICLE DISPLAY, LOOPS		
	Ex. 2."	PVC80				SPARE		
	Ex. 2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE		
54	Ex. 2."	PVC80		9-2CS		VEHICLE DETECTION CABLE		
	Ex. 2."	PVC80		1-5C, 6-2CS	1-5C, 3-2CS	VEHICLE DISPLAY, LOOPS		
	Ex. 2."	PVC80		2-3C, 4-2CS	2-2CS	VEHICLE DETECTION CABLE		
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)		
74	EX. 4" W/ (4) 1"	PVC80	В			SPARE W/PULL TAPE		
/4	INNERDUCT	F V C 60	С			SPARE W/PULL TAPE		
			D			SPARE W/PULL TAPE		
92	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE		

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DATE	3/12/2021					ASH			
PLOTTED BY	hindscl				1 10 00	АЭП			
DESIGNED BY	H. GIANG				ЈОВ NUMBI 18C52	BER			
ENTERED BY	H. GIANG				1003	26			
CHECKED BY	R. CRUMBLEY	AD5 - NOTE REVISION	03/11/2021	HG	CONTRACT	NO.	LOCATION NO.		
PROJ. ENGR.	L. MOODY	AD3 - CONSTRUCTION & WIRE NOTES REVISION	02/24/2021	HG	]		XL5863		
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY	]				



Washington State
Department of Transportation

SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

ITS PLAN

PLAN REF NO ITS15A

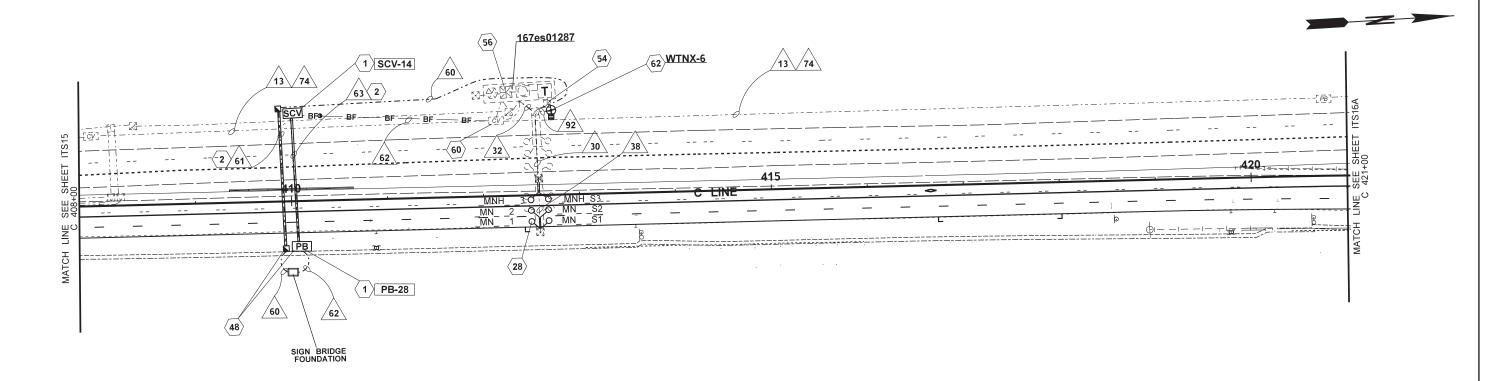
SHEET

209

OF

357

SHEETS



CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE SHEET <b>ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
28	ABANDON EXISTING LOOPS. INSTALL NEW TYPE R1S SPEED INDUCTION LOOP VEHICLE DETECTORS IN CENTER OF EACH LANE AND SPLICE TO EXISTING 2CS CABLES IN ACCORDANCE WITH <b>STANDARD PLAN J-50.13</b> . INSTALL ADDITIONAL 2-2CS LOOP CABLES AND RUN BACK TO EXISTING CABINET.
48	INSTALL PULL BOX AND JUNCTION BOX ADJACENT TO NOISE WALL AND EXTEND THE CONDUITS FROM BOXES UNDERNEATH NOISE WALL TO INSIDE SIGN BRIDGE LEG. SEE SIGN BRIDGE STRUCTURE NO. 3 ON DETAIL <b>SHEET SB4.</b>
54	EXTEND NEW CONDUIT INTO EXISTING JUNCTION BOX.
56	SEE <b>SHEET ITD1</b> FOR ADDITIONAL EQUIPMENT.
60	INSTALL NEW CONDUIT INTO EXISTING CABLE VAULT. GROUT AROUD CONDUIT ENTRY HOLES TO PROVIDE WATER TIGHT SEAL.
62	INSTALL (40) FT. CLASS 5 TIMBER POLE, TEMORARY WAVETRONIX SMART SENSOR, CONDUIT RISER WITH WEATHERHEAD, AND ASSOCIATED EQUIPMENT AS PER MANUFACTURE'S RECOMMENDATIONS, SPECIAL PROVISIONS, AND DETAIL SEE DETAIL SHEET ITS14A. FOUTE CONDUIT AND WAVETRONIX CABLE TO DATA STATION.

WIRING SCHEDULE							
$\overline{\wedge}$	CONDUIT						
NO.	RACEWAY	MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS	
			Α	1-36 SMFO		EXISTING DISTRIBUTION & TOLL SYSTEM FIBER	
13	EX. 4" W/ (4) 1"	PVC80	В			SPARE W/PULL TAPE	
13	INNERDUCT	7 0 0 0 0	С			SPARE W/PULL TAPE	
			D			SPARE W/PULL TAPE	
30	Ex. 2."	PVC80		6-2CS	2-2CS	VEHICLE DETECTION CABLE	
	Ex. 2."	PVC80		6-2CS	WAVETRONIX	VEHICLE DETECTION, WAVETRONIX HOMERUN CABLE	
32	Ex. 3."	PVC80		4-2CS	2-2CS	VEHICLE DETECTION CABLE	
	Ex. 3."	PVC80				SPARE W/PULL TAPE	
38	Ex. 2."	PVC80		2-2CS	2-2CS	VEHICLE DETECTION CABLE	
60	2."	PVC80			EMPTY	FUTURE POWER TO TRANSFORMER W/PULL TAPE	
61	2."	HDPE80			EMPTY	FUTURE POWER TO TRANSFORMER W/PULL TAPE	
01	3."	HDPE80				SPARE W/PULL TAPE	
62	2."	PVC80				SPARE W/PULL TAPE	
63	2."	HDPE80			EMPTY	SPARE W/PULL TAPE	
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)	
74	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE	
/4	INNERDUCT	1 0 0 0 0	С			SPARE W/PULL TAPE	
			D				
92	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE	

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS16
WIRE SCHEDULE	ITS16

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ᆸ	DATE	3/12/2021					WASH			
≦	PLOTTED BY	hindscl				10	WASH			
ጟ	DESIGNED BY	H. GIANG				JOB N	UMBER			
g	ENTERED BY	H. GIANG				100	526			
₹	CHECKED BY	R. CRUMBLEY	AD5 - NOTE REVISION	03/11/2021	HG	CONTR	RACT NO.	LOCATION NO.		
ŏ.	PROJ. ENGR.	L. MOODY	AD3 - CONSTRUCTION & WIRE NOTES REVISION	02/24/2021	HG			XL5863		
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY					



50 SCALE IN FEET

> Digitally signed by Ray Crumbley Date: 2021.03.12 16:29:26 -08'00'

<b>7</b>
Washington State Department of Transportation

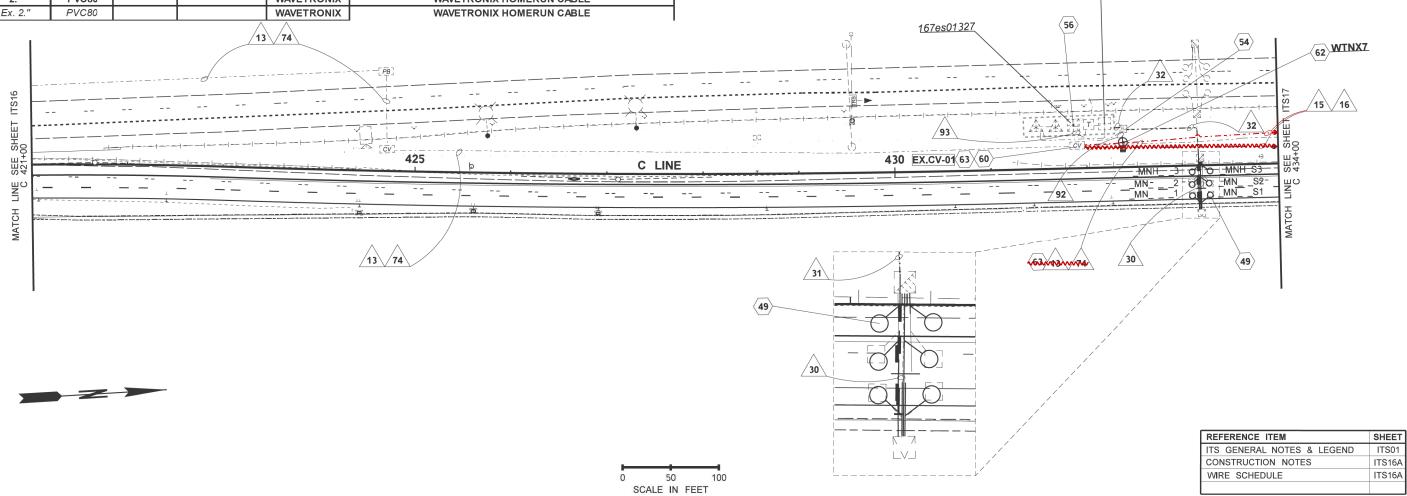
SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
ITS PLAN

SHEET 210 OF 357 SHEETS

$\overline{\wedge}$	CONDUIT					
NO.	RACEWAY	MATERIAL*	INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
			Α	1-36 SMFO		EXISTING DISTRIBUTION & TOLL SYSTEM FIBER
13	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
13	INNERDUCT	F V C 80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α	1-48 SMFO		RELOCATED EXISTING MAINLINE FIBER
15	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
INNERDUCT	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
	4" w/ (4) 1" INNERDUCT	PVC80	Α	1-36 SMFO		RELOCATED EXISTING DISTRIBUTION FIBER
16			В			SPARE W/PULL TAPE
10			С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
30	Ex. 2."	PVC80		2-2CS, 1-COAX		VEHICLE DETECTION CABLE, PIEZO COAX
31	Ex. 2."	PVC80		4-2CS, 2-COAX	2-2CS, 3 COAX	VEHICLE DETECTION CABLE, PIEZO COAX
	Ex. 2."	PVC80		6-2CS, 3-COAX		VEHICLE DETECTION CABLE, PIEZO COAX
32	Ex. 3."	PVC80		4-2CS, 2-COAX	2-2CS, 1 COAX	VEHICLE DETECTION CABLE, PIEZO COAX
	Ex. 3."	PVC80				SPARE W/PULL TAPE
			Α	1-48 SMFO		EXISTING MAINLINE FIBER (SR 167)
74	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
74	INNERDUCT		С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
92	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE
93	Ex. 2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE

CONS	TRUCTION NOTES
NO.	DESCRIPTION
49	INSTALL PERMANET TRAFFIC RECORDER LOOPS AND PIEZOELECTRIC SENSOR IN ALL THREE LANES IN ACCORDANCE WITH <b>STANDARD PLAN J-50.30</b> . SPLICE INTO EXISTING CONDUCTORS. ABANDON EXISTING INDUCTION LOOPS AND PIEZO'S. INSTALL 2CS AND COAX CABLES TO THE EXISTING PTR CABINET.
54	EXTEND NEW CONDUIT INTO EXISTING JUNCTION BOX.
56	SEE <b>SHEET ITD1</b> FOR ADDITIONAL EQUIPMENT.
60	INSTALL NEW CONDUIT INTO EXISTING CABLE VAULT. GROUT AROUD CONDUIT ENTRY HOLES TO PROVIDE WATER TIGHT SEAL.
62	INSTALL (40) FT. CLASS 5 TIMBER POLE, TEMORARY WAVETRONIX SMART SENSOR, CONDUIT RISER WITH WEATHERHEAD, AND ASSOCIATED EQUIPMENT AS PER MANUFACTURE'S RECOMMENDATIONS, SPECIAL PROVISIONS, AND DETAIL SEE DETAIL SHEET ITS14A. ROUTE CONDUIT AND WAVETRONIX CABLE TO DATA STATION.
63	SEE SHEET ITS17 FOR CONSTRUCTION SQUENCE FOR RE-ROUTE FIBER AROUND THE POND.

PTR-R113



FILE NAME c:\users\hindscl\d0271536\XL5863\_PS\_ITS\_016A.dgn REGION NO. FED.AID PROJ.NO. DATE 3/12/2021 10 WASH PLOTTED BY DESIGNED BY H. GIANG 18C526 RFI #031 - POND 3 BURIED FIBER 10/22/2021 ENTERED BY H. GIANG CHECKED BY R. CRUMBLEY AD5 - NOTE REVISION 03/11/2021 HG LOCATION NO. AD3 - CONSTRUCTION & WIRE NOTES REVISION 02/24/2021 XL5863 PROJ. ENGR. L. MOODY REGIONAL ADM. J. WYNANDS



Digitally signed by Ray Crumbley Date: 2021.03.12 16:29:45 -08'00'

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** Washington State
Department of Transportation

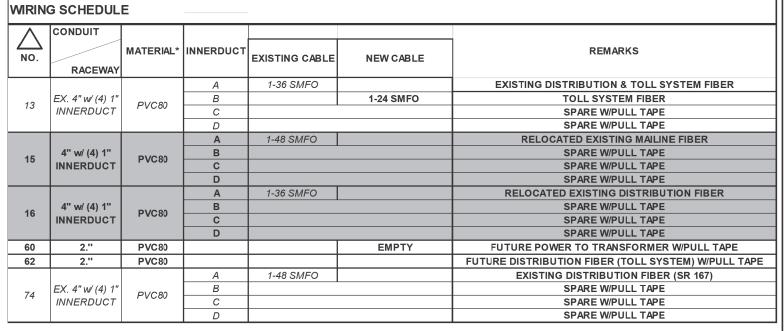
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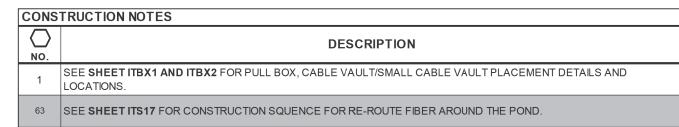
ITS PLAN

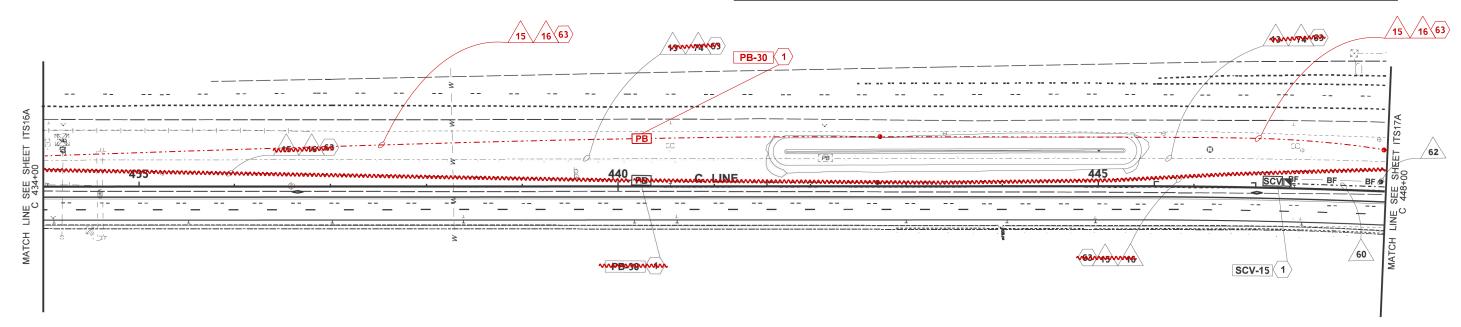
211 OF 357 SHEETS

PLAN REF NO

NO.	CONSTRUCTION SEQUENCE FOR RE-ROUTE FIBER AROUND THE POND
1	INSTALL NEW CONDUIT INTO EXISTING CABLE VAULT <b>EX. CV-01</b> AND <b>EX CV-02</b> . GROUT AROUND CONDUIT ENTRY HOLES TO PROVIDE WATER TIGHT SEAL. SEE <b>SHEET ITD17</b> FIBER OPTIC CONDUIT TRENCH DETAIL.
2	INSTALL CONDUITS 10 FEET OFFSET FROM C-LINE BETWEEN STATION 441 AND STATION 446. CONDUIT TRANSITIONS SHALL BE 25:1 OR FLATTER.
3	IN EX. CV-02, CUT EXISTING 48 SMFO (JUST 48 SMFO ONLY) PRESERVING CABLE TO RESPLICE. PULL EXISTING CABLE SOUTH TO EX. CV-01 AND RE-INSTALL 48 SMFO THROUGH NEW CONDUIT TO EX. CV-02. SPLICE EXISTING 48 SMFO TO EXISTING 48 SMFO MAINLINE CABLE IN A NEW SPLICE ENCLOSURE. ALL 48 FIBERS SHALL BE SPLICED IN ONE CONTINUOUS OPERATION. SEE SPECIAL PROVISIONS FOR NOTIFICATION REQUIREMENTS.
4	AFTER THE 48 SMFO MAINLINE CABLE IS RELOCATED, RESPLICED AND FUNCTIONING, IN <b>EX. CV-02</b> , REMOVE EXISTING 36 SMFO FROM EXISTING SPLICE ENCLOSURE PRESERVING CABLE TO RESPLICE. PULL EXISTING CABLE SOUTH TO <b>EX. CV-01</b> AND RE-INSTALL 36 SMFO THROUGH NEW CONDUIT TO <b>EX. CV-02</b> . RESPLICE EXISTING 36 SMFO INTO EXISTING 36 SMFO DISTRIBUTION AND 24 SMFO PRETERM STUB CABLES IN A NEW SPLICE ENCLOSURE. SEE SPLICE DETAIL ON <b>SHEET ITF09</b> . ALL 36 FIBERS SHALL BE SPLICED IN ONE CONTINUOUS OPERATION. SEE SPECIAL PROVISIONS FOR NOTIFICATION REQUIREMENTS.
5	REMOVE THE ABANDONED CONDUITS IN BOTH CABLE VAULTS <b>EX. CV-01</b> AND <b>EX. CV-02.</b> PATCH HOLES WITH GROUT TO PROVIDE WATER TIGHT SEAL. REMOVE EXISTING CONDUIT AND PULL BOX WITHIN THE POND EXCAVATION.







REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS17
WIRE SCHEDULE	ITS17

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50 SCALE IN FEET

> Digitally signed by Ray Crumbley Date: 2021.03.03 08:49:38 -08'00'

Washington State
Department of Transportation

SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

SHEET 212 OF 357

PLAN REF NO

NO	CONSTRUCTION SEQUENCE FOR RE-ROUTE FIBER AROUND THE POND
1	INSTALL NEW CONDUIT INTO EXISTING CABLE VAULT <b>EX. CV-01</b> AND <b>EX CV-02</b> . GROUT AROUND CONDUIT ENTRY HOLES TO PROVIDE WATER TIGHT SEAL. SEE <b>SHEET ITD17</b> FIBER OPTIC CONDUIT TRENCH DETAIL.
2	INSTALL CONDUITS 10 FEET OFFSET FROM C-LINE BETWEEN STATION 441 AND STATION 446. CONDUIT TRANSITIONS SHALL BE 25:1 OR FLATTER.
3	IN EX. CV-02, CUT EXISTING 48 SMFO (JUST 48 SMFO ONLY) PRESERVING CABLE TO RESPLICE. PULL EXISTING CABLE SOUTH TO EX. CV-01 AND RE-INSTALL 48 SMFO THROUGH NEW CONDUIT TO EX. CV-02. SPLICE EXISTING 48 SMFO TO EXISTING 48 SMFO MAINLINE CABLE IN A NEW SPLICE ENCLOSURE. ALL 48 FIBERS SHALL BE SPLICED IN ONE CONTINUOUS OPERATION. SEE SPECIAL PROVISIONS FOR NOTIFICATION REQUIREMENTS.
4	AFTER THE 48 SMFO MAINLINE CABLE IS RELOCATED, RESPLICED AND FUNCTIONING, IN <b>EX. CV-02</b> , REMOVE EXISTING 36 SMFO FROM EXISTING SPLICE ENCLOSURE PRESERVING CABLE TO RESPLICE. PULL EXISTING CABLE SOUTH TO <b>EX. CV-01</b> AND RE-INSTALL 36 SMFO THROUGH NEW CONDUIT TO <b>EX. CV-02</b> . RESPLICE EXISTING 36 SMFO INTO EXISTING 36 SMFO DISTRIBUTION AND 24 SMFO PRETERM STUB CABLES IN A NEW SPLICE ENCLOSURE. SEE SPLICE DETAIL ON <b>SHEET ITF09</b> . ALL 36 FIBERS SHALL BE SPLICED IN ONE CONTINUOUS OPERATION. SEE SPECIAL PROVISIONS FOR NOTIFICATION REQUIREMENTS.
5	REMOVE THE ABANDONED CONDUITS IN BOTH CABLE VAULTS <b>EX. CV-01</b> AND <b>EX. CV-02</b> . PATCH HOLES WITH GROUT TO PROVIDE WATER TIGHT SEAL. REMOVE EXISTING CONDUIT AND PULL BOX WITHIN THE POND EXCAVATION.

FILE NAME

PLOTTED BY

ENTERED BY

DESIGNED BY

CHECKED BY

PROJ. ENGR.

H. GIANG

H. GIANG

L. MOODY

REGIONAL ADM. J. WYNANDS

R. CRUMBLEY

DATE

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RFI #081 - POND 3 BURIED POWER

AD3 - CONSTRUCTION & WIRE NOTES REVISION 02/24/2021 HG
REVISION DATE BY

WIRI	IG SCHEDUL	E		-		
	CONDUIT					
NO.	RACEWAY		INNERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
	RACEVVAT		A	1-36 SMFO		EXISTING DISTRIBUTION & TOLL SYSTEM FIBER
	EX. 4" w/ (4) 1"		B	1-30 01/11 0	1-24 SMFO	TOLL SYSTEM FIBER
13	INNERDUCT	PVC80	C		1-24 SWIFO	SPARE W/PULL TAPE
	""" L		D			SPARE W/PULL TAPE
			A	1-48 SMFO		RELOCATED EXISTING MAILINE FIBER
	4" w/ (4) 1"		В	7 70 0.0		SPARE W/PULL TAPE
15	INNERDUCT	PVC80	C			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
			Α	1-36 SMFO		RELOCATED EXISTING DISTRIBUTION FIBER
40	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
16	INNERDUCT		С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
60	2."	PVC80			EMPTY	FUTURE POWER TO TRANSFORMER W/PULL TAPE
62	2."	PVC80				FUTURE DISTRIBUTION FIBER (TOLL SYSTEM) W/PULL TAPE
			Α	1-48 SMFO		EXISTING DISTRIBUTION FIBER (SR 167)
	EX. 4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
'4	INNERDUCT	F V C 60	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE

CONSTRUCTION NOTES						
NO.	DESCRIPTION					
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.					
63	SEE SHEET ITS17 FOR CONSTRUCTION SQUENCE FOR RE-ROUTE FIBER AROUND THE POND.					

Washington State
Department of Transportation

SR 167

SR 410 TO SR 18

**CONGESTION MANAGEMENT** 

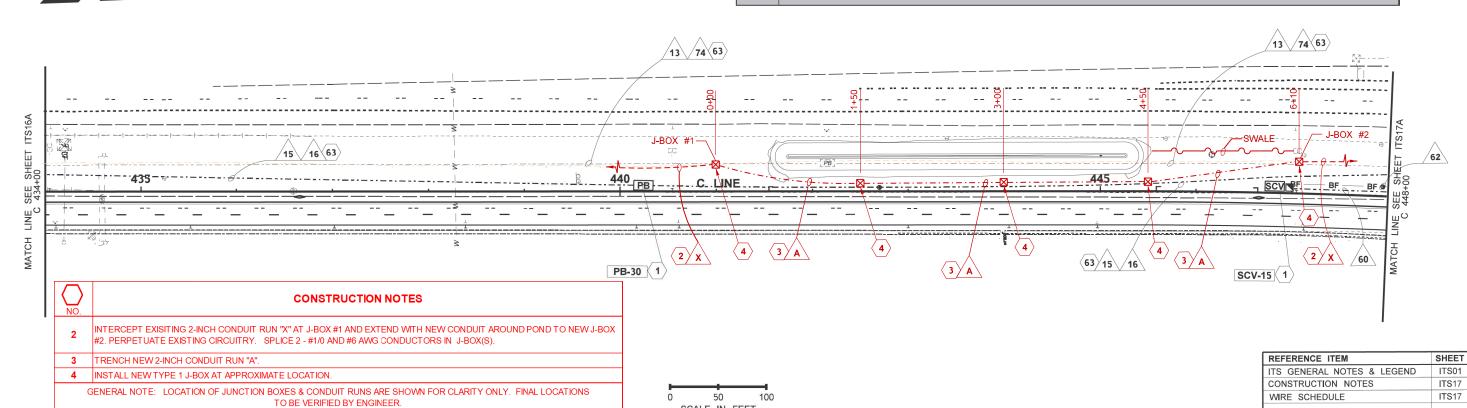
ITS PLAN

PLAN REF NO

ITS17

212 OF

357 SHEETS



SCALE IN FEET

REGION NO.

10 WASH

18C526

FED.AID PROJ.NO.

LOCATION NO.

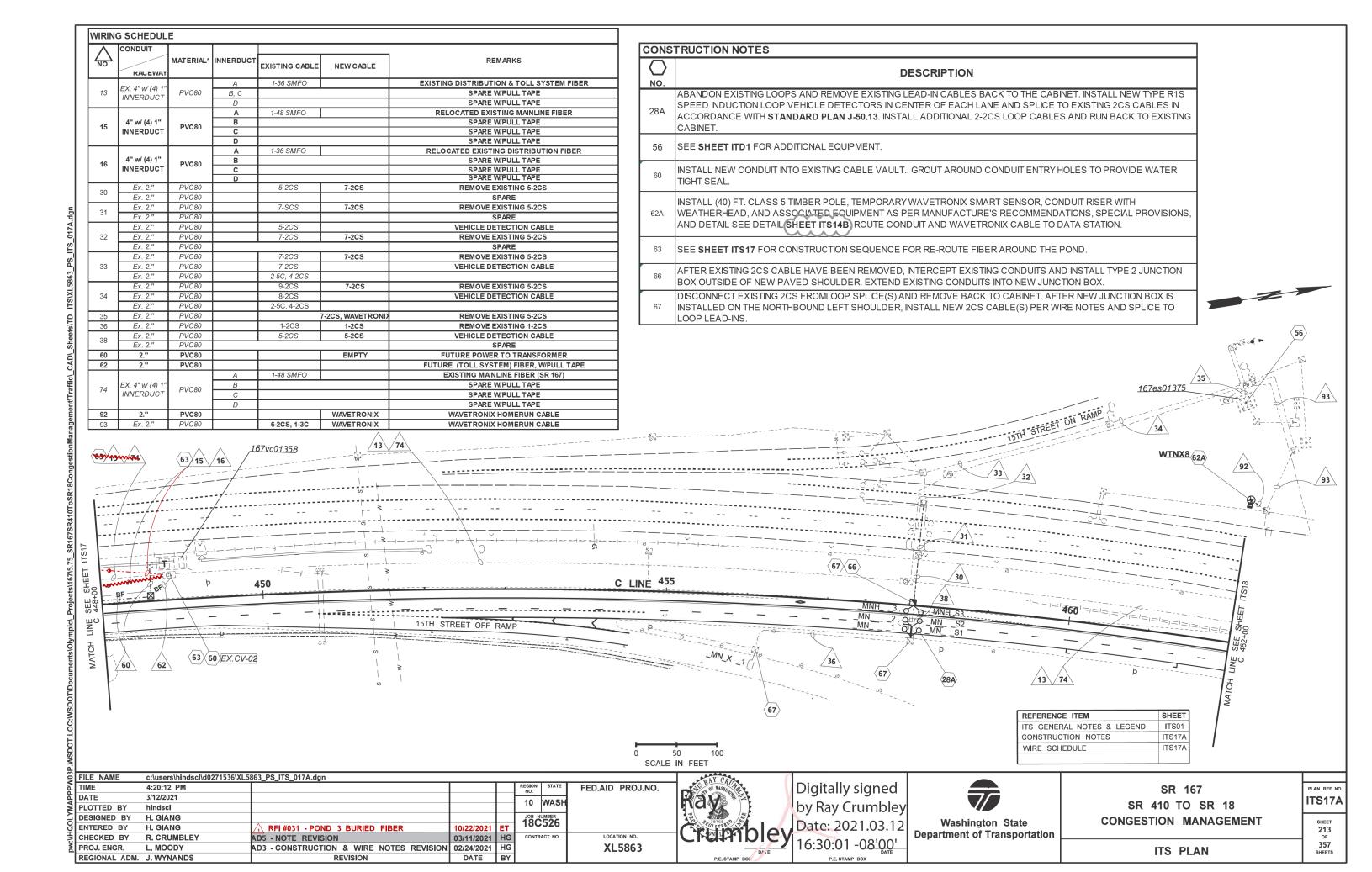
XL5863

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by Ray Crumbley

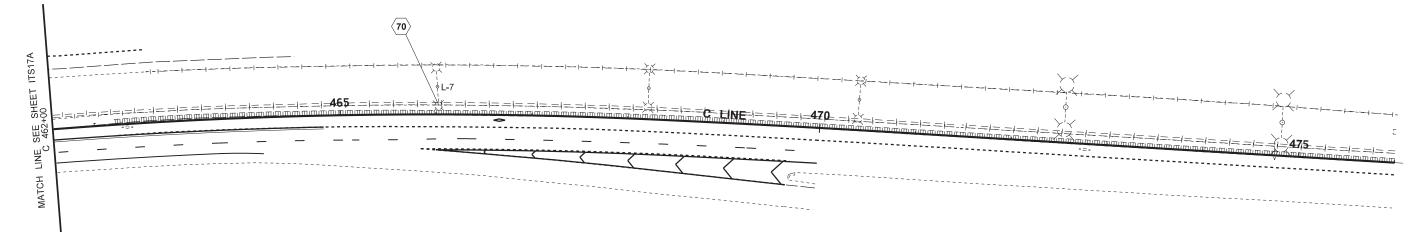
Date: 2021.03.03

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CONS	TRUCTION NOTES
NO.	DESCRIPTION
70	REMOVE EXISTING LUMINAIRE HEAD. REPLACE WITH NEW 750W, TYPE III-MEDIUM CUTOFF HEAD. POWER SOURCE IS SAD #2140, 480V.





\*\*EXISTING DOUBLE LUMINAIRE

0 50 10 SCALE IN FEET

FILE NAME	c:\users\glangh\pw_wsdot\d02	71536\XL5863_PS_ITS_018.dgn					
TIME	11:21:46 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	1/18/2021					WASH	
PLOTTED BY	giangh				10	WASH	
DESIGNED BY	H. GIANG				JOB N	UMBER 526	
ENTERED BY	H. GIANG				100	,526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
REGIONAL ADM	I WYNANDS	REVISION	DATE	RY			



Jan 19 2021 10:44 AM



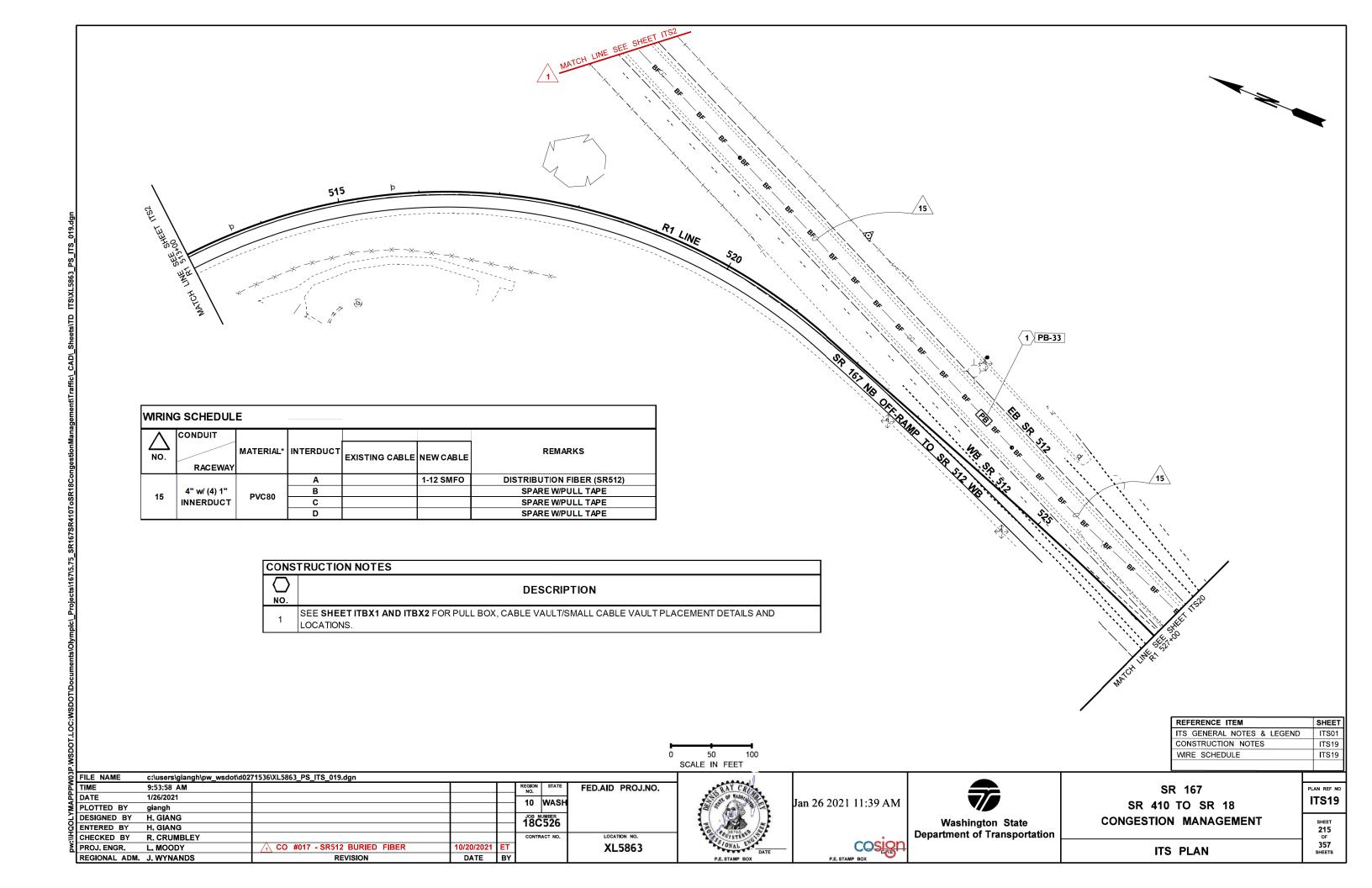
SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

214 of 357 SHEETS

PLAN REF NO

ITS18



CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
9	INSTALL NEW TYPE E SERVICE CABINET (SCA 0964) WITH PHOTOELECTRIC CONTROL ON FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.22 AND BREAKER SCHEDLE ON THIS SHEET.
52	INTERCEPT EXISTING CONDUIT AND EXTEND INTO NEW JUNCTION BOX . ROUTE EXISTING CONDUCTORS IN NEW SERVICE CABINET.
53	REMOVE EXISTING SERVICE CABINET (SCA 0964) EXTEND NEW CONDUIT INTO EXISTING METER BASE. COORDINATE WITH THE SERVING UTILITY FOR DISCONNECT/RECONNECT.
WIRING	3 SCHEDULE

	CONDUIT MATERIAL*					
$  \wedge  $	CONDUIT					
NO.	RACEWAY	MATERIAL*	NEWCABLE	ILLUM. CKT A		REMARKS
4A	2."	PVC80	3-#2			POWER FROM METER TO SERVICE CABINET
4B	Ex. 1.5"	PVC80		2-#6	2-#6	EXISTING ILLUMINATION & WAVETRONIC DATA STATION
4C	Ex. 1."	PVC80			2-#6	EXISTING ILLUMINATION
4D	Ex. 1."	PVC80	·	2-#6		EXISTING ILLUMINATION & WAVETRONIC DATA STATION
4E	Ex. 1."	PVC80		2-#6		EXISTING ILLUMINATION & WAVETRONIC DATA STATION
64	2"	DVC80		2-#6	2-#6	EXISTING II I I IMINATION & WAVETRONIC DATA STATION

WIRING	WIRING SCHEDULE								
$\overline{}$	CONDUIT		INTERDUCT						
NO.		MATERIAL*		EXISTING CABLE	NEW CABLE	REMARKS			
	RACEWAY								
4	2."	PVC80			2-#1, 1-#6	POWER FROM SERVICE TO TRANSFORMER			
5	2."	HDPE80			2-#1, 1-#6	POWER FROM SERVICE TO TRANSFORMER			
5	2."	HDPE80			EMPTY	SPARE			
	2."	PVC80			2-#1, 1-#6	POWER FROM SERVICE TO TRANSFORMER			
6	3."	PVC80			EMPTY	SPARE			
	2."	PVC80			3-#2	POWER FROM METER TO SERVICE CABINET			
			Α		1-12 SMFO	DISTRIBUTION FIBER (SR512)			
15	4" w/ (4) 1"	DVOOD	В		·	SPARE W/PULL TAPE			
15	INNERDUCT	PVC80	С			SPARE W/PULL TAPE			
			D			SPARE W/PULL TAPE			

BREAK TYPE I	SCA 0964 480 V						
CIRCUIT	DESCRIPTION / LABEL	BREA RAT POLES		CONTACTOR RATING	VOLTAGE	LOAD (kVA)	
	MAIN A ILLUMINATION		200A				
Α			30A	30 AMP	480	14.4	
В	ILLUMINATION	2P	30A	30 AMP	480	14.4	
С	512-XF-01143	2P	100A		480	7.5	
BUSSWORK SHALL BE RATED PEAK							
	ONTINUOUS	36.3					

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS20
WIRE SCHEDULE	ITS20

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11:22:04 PM FILE NAME FED.AID PROJ.NO. TIME DATE 1/18/2021 10 WASH PLOTTED BY giangh DESIGNED BY H. GIANG 18C526 ENTERED BY H. GIANG CHECKED BY R, CRUMBLEY XL5863 RFI 077 - SCA 0964 CONDUIT & WIRE NOTES 03/22/2022 PROJ. ENGR. L. MOODY REGIONAL ADM. J. WYNANDS REVISION DATE



50 SCALE IN FEET

Jan 19 2021 10:45 AM

P.E. STAMP BOX



Washington State **Department of Transportation** 

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

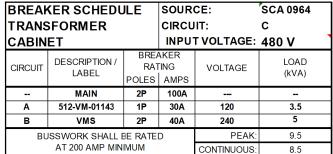
ITS PLAN

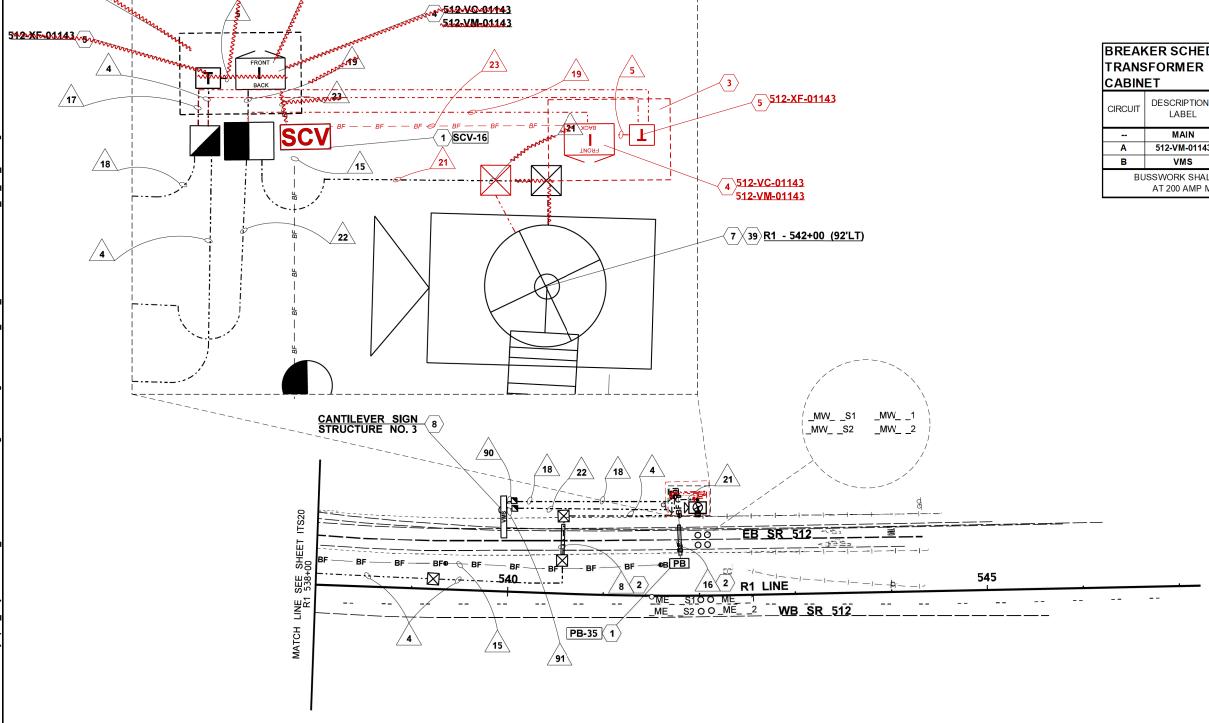
ITS20 216 or 357 SHEETS

PLAN REF NO

CHANGE ORDER NO.: 009 CONTRACT NO.: 009636







ITO04
ITS01
ITS20B
ITS20B

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È	PLOTTED BY	giangh				10	WASH		1		
Ž	DESIGNED BY	H. GIANG				JOB N	526		1		
3	ENTERED BY	H. GIANG				100	,526		l		
١	CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.	1		
Ѯ	PROJ. ENGR.	L. MOODY	CO #09 - MAINTENANCE PULLOUT REVISIONS	10/03/2022	AD			XL5863	1		
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				1		

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50 SCALE IN FEET

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COSION P.E. STAMP BOX

Washington Department of Tra	

SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS	PLAN	

SHEET
217
OF
357
SHEETS

PLAN REF NO ITS20A

CONS	TRUCTION NOTES							
NO.	DESCRIPTION							
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.							
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.							
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-10.10</b> .							
4	INSTALL A 334D ITS CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.							
5	INSTALL A CABINET WITH A 7.5 KVA 240/120 VAC TRANSFORMER IN ACCORDANCE WITH <b>STANDARD PLAN J-10.10 AND J-10.25</b> AND PER TRANSFORMER BREAKER DETAILS ON <b>SHEETS ITS20A</b> .							
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .							
8	FURNISH AND INSTALL CANTILEVER MONOTUBE T STRUCTURE FOUNDATION IN ACCORDANCE WITH SIGN BRIDGE SHEETS SB15-SB22, FURNISH AND INSTALL NEW WALK-IN VARIABLE MESSAGE SIGN (VMS) AS IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS, STANDARD PLAN G-95.10, AND SEE SHEET ITD2 FOR ADDITIONAL DETAILS.							
39	INSTALL WAVETRONIX SMART SENSOR, CONDUIT, WEATHER HEAD, AND ASSOCIATED EQUIPMENT ON CCTV POLE PER DETAIL <b>SHEET ITD8</b> , PER MANUFACTURER'S RECOMMENDATION'S, AND SPECIAL PROVISIONS.							

WIRING	G SCHEDUL	E				
No.	CONDUIT	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS
4	2."	PVC80			2-#1,1-#6	POWER FROM SERVICE TO TRANSFORMER
5	2."	PVC80			3-#8	POWER FROM TRANSFORMER TO CABINET
8	2."	HDPE80			2-#1,1-#6	POWER FROM SERVICE TO TRANSFORMER
	2."	HDPE80				SPARE W/PULL TAPE
			Α		1-12 SMFO	DISTRIBUTION FIBER (SR512)
15	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE
15	INNERDUCT	PVC80	С			SPARE W/PULL TAPE
			D			SPARE W/PULL TAPE
16	2."	HDPE80			1-12 SMFO	DISTRIBUTION FIBER (SR512)
10	2."	HDPE80				SPARE W/PULL TAPE
17	2."	PVC80			3-#8	240V- POWER VMS
- 17	2."	PVC80				SPARE W/PULL TAPE
18	2."	PVC80			3-#8	240V- POWER VMS
	2."	PVC80			1-CAT 6	CCTV CABLE
19	2."	PVC80			1-VMS CABLE	VMS NETWORK CABLE
	3."	PVC80				SPARE W/PULL TAPE
21	2."	PVC80			1-CAT 6	CCTV CABLE
22	2."	PVC80			1-VMS CABLE	VMS NETWORK CABLE
	2."	PVC80			2-12 SMFO	PRE-TERMINATED SMFO CABLE
23	3."	PVC80				SPARE W/PULL TAPE
	3."	PVC80				SPARE W/PULL TAPE
90	1.25''	RMC			3-#8	240V - POWER VMS
91	1.25''	RMC			1-VMS CABLE	VMS NETWORK CABLE

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CHECKED BY	R. CRUMBLEY				CONTRACT NO.	LOCATION NO.					
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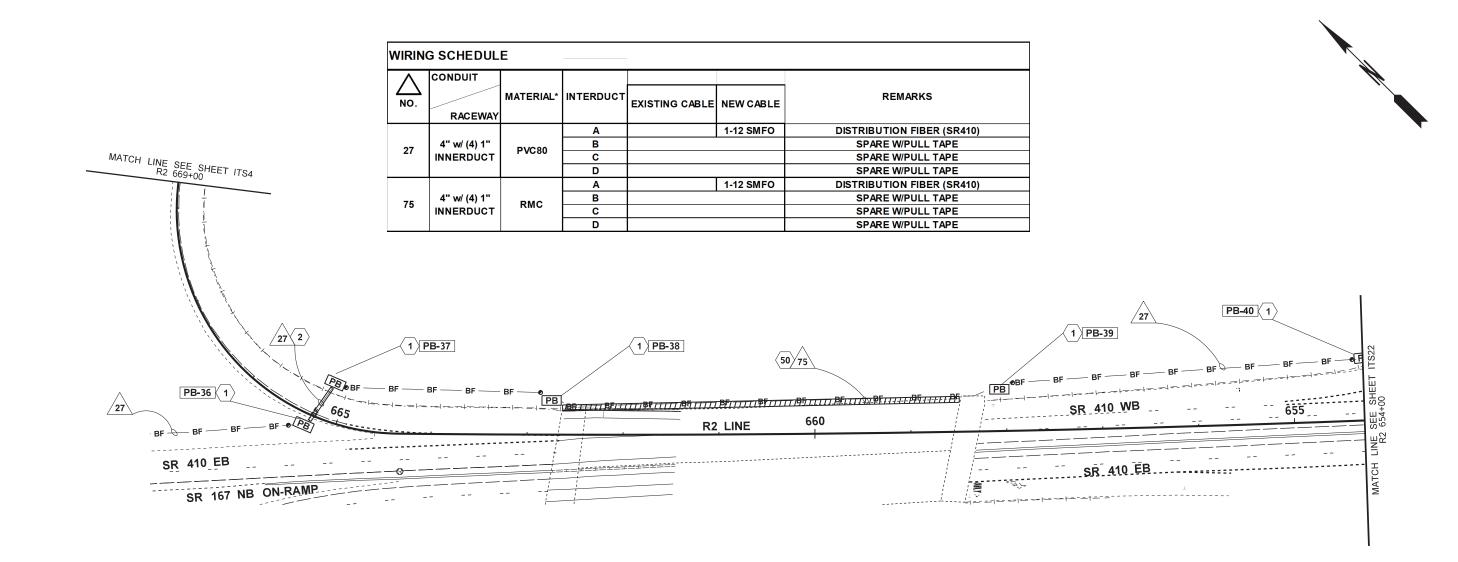
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

SHEET 218
OF 357
SHEETS

PLAN REF NO

ITS PLAN

P.E. STAMP BOX



CONS	TRUCTION NOTES
No.	DESCRIPTION
1	SEE <b>SHEET ITBX1 AND ITBX2</b> FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
2	INSTALL CONDUIT UNDER ROADWAY USING APPROVED DIRECTIONAL BORING METHOD.
50	ATTACHED CONDUIT TO BRIDGE DECK. SEE CONDUIT MOUNTING BRIDGE <b>DETAIL SHEET ITD12</b> AND <b>STANDARD PLAN J-60.13</b> .

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	SCALE	IN	FEET	

REFERENCE ITEM	SHEET
ITS GENERAL NOTES & LEGEND	ITS01
CONSTRUCTION NOTES	ITS21
WIRE SCHEDULE	ITS21

ITS21

219 OF

357 SHEETS

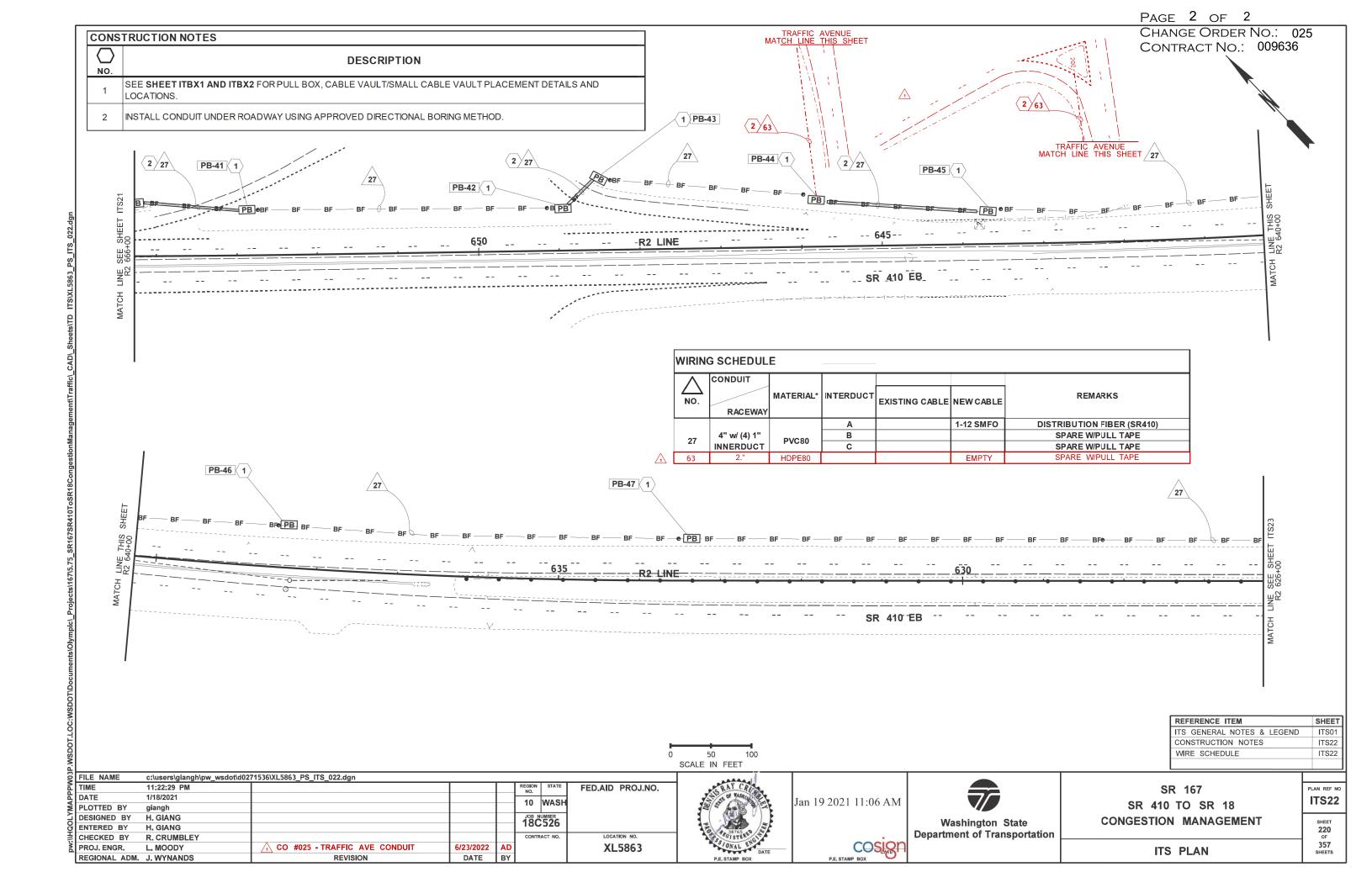
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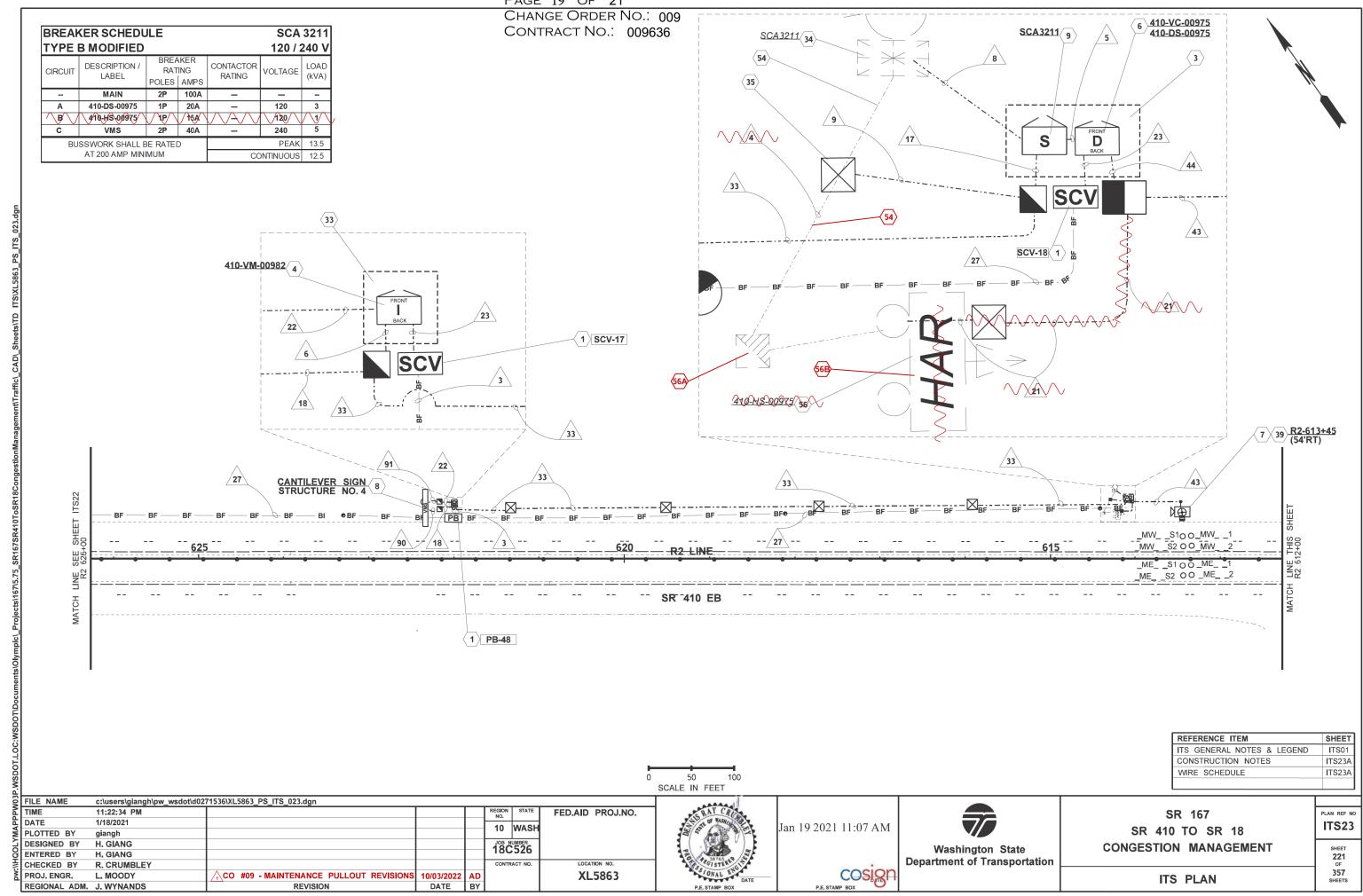


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	SR 167
	SR 410 TO SR 18
shington State ent of Transportation	CONGESTION MANAGEMENT
·	ITS PLAN





PAGE 20 OF 21

CHANGE ORDER NO.: 009

CONTRACT NO.: 009636

CONS	TRUCTION NOTES
NO.	DESCRIPTION
1	SEE SHEET ITBX1 AND ITBX2 FOR PULL BOX, CABLE VAULT/SMALL CABLE VAULT PLACEMENT DETAILS AND LOCATIONS.
3	CONSTRUCT A TWO CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
4	INSTALL A 334D ITS CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
6	INSTALL A 334D DATA STATION/ RAMP METER CABINET WITH 8" ALUMINUM RISER. INSTALL ASSOCIATED CABINET EQUIPMENT PER EQUIPMENT SCHEDULE ON DETAIL SHEET ITD1.
7	CONSTRUCT CCTV FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLAN J-29.10</b> , AND INSTALL CAMERA, CABLE, 50 FT CAMERA POLE AND FOUNDATION IN ACCORDANCE WITH <b>STANDARD PLANS J-29.15</b> .
8	FURNISH AND INSTALL CANTILEVER MONOTUBE T STRUCTURE FOUNDATION IN ACCORDANCE WITH SIGN BRIDGE SHEETS SB15-SB22, FURNISH AND INSTALL NEW WALK-IN VARIABLE MESSAGE SIGN (VMS) AS IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS, STANDARD PLAN G-95.10, AND SEE SHEET ITD2-ITD3 FOR ADDITIONAL DETAILS.
9	INSTALL NEW STRUT MOUNT TYPE B MODIFIED SERVICE CABINET SCA 3211 IN ACCORDANCE WITH STANDARD PLAN J-10.20 AND BREAKER SCHEDULE ON SHEET ITS23.
33	CONSTRUCT A ONE CABINET FOUNDATION IN ACCORDANCE WITH STANDARD PLAN J-10.10.
34	REMOVE EXISTING TYPE A SERVICE CABINET. EXTEND CONDUIT FROM EXISTING METER TO NEW SERVICE CABINET. COORDINATE WITH SERVING UTILITY FOR DISCONNECT/RECONNECT.
35	INTERCEPT EXISTING CONDUITAND INSTALL TYPE I JUNCTION BOX INSTALL NEW CIRCUIT C CONDUCTORS AND SPLICE TO EXISTING HAR SIGN CABINET POWER.
39	INSTALL WAVETRONIX SMART SENSOR, CONDUIT, WEATHER HEAD, AND ASSOCIATED EQUIPMENT ON CCTV POLE PER DETAIL <b>SHEET ITD8</b> , PER MANUFACTURER'S RECOMMENDATION'S, AND SPECIAL PROVISIONS.
54	REMOVE CONDUCTORS. ABANDON CONDUIT.
^56/\	SEE SHEET (1101) FOR ADDITIONAL/EQUIPMENT.//
56A	REMOVE EXISTING JUNCTION BOX, CONDUCTORS AND CONDUIT UPSWEEPS IF ANY. ABANDON UNDERGROUND CONDUIT.
56B	REMOVE EXISTING HAR SIGN, POLE FOUNDATIONS, EQUIPMENT AND BACKFILL VOID. RETURN CABINET AND EQUIPMENT TO WSDOT OLYMPIC REGION SIGNAL SHOP.

WRING	SCHEDUL	E								
$\overline{}$	CONDUIT									
NO.	`	MATERIAL*	INTERDUCT	EXISTING CABLE	NEW CABLE	REMARKS				
	RACEWAY									
3	2."	PVC80			2-12 SMFO	DISTRIBUTION FIBER (SR 410)				
	3."	PVC80				SPARE W/PULL TAPE				
4	Ex. 2."	RMC			2-#8	POWER FROM SERVICE TO HAR SIGN				
5	2."	PVC80			6-#2	POWER FROM SERVICE TO CABINET				
6	2."	PVC80			6-#2					
8	2."	PVC80			3-#2	POWER FROM METER TO SERVICE CABINET				
9\/	<b>√ √2</b> .'' <b>/ √</b>	\_\b\\c\80\\	$\bigvee\bigvee\bigvee$	$\sim$	\_/\_/2\#8\_/\_/	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				
	2."	PVC80			3-#2	240V- POWER VMS				
17	2:"	<b>√680</b> √A		$\wedge \vee \vee$	\ <u>\</u> 2\#8\\\	////POWER FROM SERVICE/TO/HAR SIGN/,				
	2."	PVC80				SPARE W/PULL TAPE				
18	2."	PVC80			3-#8	240V- POWER VMS				
21	$\bigcirc$ 2." $\bigcirc$ $\bigcirc$	VPVC80∕	$\bigvee\bigvee\bigvee$	$\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{$	<b>∕ 1</b> 4 <b>℃</b> AT∕6 <b>√ \</b>	/ / / / HAR SIGN COMMUNICATION CABLE				
22	2."	PVC80			1-VMS CABLE	VMS NETWORK CABLE				
	2."	PVC80			2-12 SMFO	PRE-TERMINATED SMFO CABLE				
23	3."	PVC80				SPARE W/PULL TAPE				
	3."	PVC80				SPARE W/PULL TAPE				
			Α		1-12 SMFO	DISTRIBUTION FIBER (SR410)				
27	4" w/ (4) 1"	PVC80	В			SPARE W/PULL TAPE				
21	INNERDUCT	PVC60	С			SPARE W/PULL TAPE				
			D			SPARE W/PULL TAPE				
33	2."	PVC80			3-#2	240V POWER SERVICE TO CABINET AND VMS				
34	2."	PVC80			6-2CS CABLE	VEHICLE DETECTION CABLE				
43	2."	PVC80			WAVETRONIX	WAVETRONIX HOME RUN CABLE				
43	2."	PVC80			1-CAT 6	CCTV CABLE				
	2."	PVC80			WAVETRONIX	WAVETRONIX HOMERUN CABLE				
44	2."	PVC80			1 X-CAT 6	CCTV CABLE AND HAR SIGN COMMUNICATION				
44	3."	PVC80				SPARE W/PULL TAPE				
	3."	PVC80				SPARE W/PULL TAPE				
90	1.25"	RMC			3-#8	240V - POWER VMS				
91	1.25''	RMC			1-VMS CABLE	VMS NETWORK CABLE				

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SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

ITS PLAN

222 OF 357 SHEETS

PLAN REF NO

#### CABLE VAULT SCHEDULE

CABLE VAULT SCHEDULE					
SHEET NO.	BOX NO.	LINE	STATION	OFFSET	NOTES
ITS1A	SCV-01	C-LINE	27+53	44' RT	
ITS2	SCV-1A	C-LINE	48+79	25' LT*	
ITS2	SCV-2A	C-LINE	48+86	104' RT	
ITS3	CV-02	C-LINE	67+49	202' LT	
ITS3	SCV-3A	C-LINE	67+47	25' LT*	
ITS3A	CV-04	C-LINE	83+80	25' LT*	
ITS3A	SCV-03	C-LINE	83+80	59' RT	
ITS4	SCV-5A	C-LINE	105+34	25' LT*	
ITS4	SCV-6A	C-LINE	106+30	65' LT	
ITS4	SCV-04	C-LINE	104+38	53' RT	
ITS5	SCV-05	C-LINE	132+80	48' LT	
∆ ITS5B	CV-07	C-LINE	134+17	25' LT*	
ITS6	SCV-8A	C-LINE	155+75	25' LT*	
ITS6	SCV-07	C-LINE	155+67	63' RT	
ITS6	SCV-7A	C-LINE	148+20	63' RT	
ITS7	CV-09	C-LINE	184+99	25' LT*	
ITS7	SCV-08	C-LINE	185+01	22' LT	

# **CABLE VAULT SCHEDULE**

SHEET NO.	BOX NO.	LINE	STATION	OFFSET	NOTES
ITS8A	SCV-10A	C-LINE	213+96	25' LT*	
ITS8A	SCV-09	C-LINE	213+93	65' RT	
ITS9A	SCV-10	C-LINE	239+50	137' RT	
ITS9A	SCV-11A	C-LINE	250+58	25' LT*	
ITS9A	SCV-11	R3-LINE	810+88	30' RT	
ITS12	CV-12	C-LINE	311+80	62' RT	
ITS14	SCV-13	C-LINE	361+68	48' RT	
ITS16	SCV-14	C-LINE	409+97	88' LT	
ITS17	SCV-15	C-LINE	446+64	10' LT	
ITS20A	SCV-16	R1-LINE	241+79	103' RT	
ITS23	SCV-12A	R2-LINE	621+94	67' RT	
ITS23	SCV-12	R2-LINE	614+07	67' RT	

MEASUREMENT IS TO CENTER OF BOX.

\*OFFSET DISTANCE MEASURE OFF FROM EDGE OF PAVEMENT SR 167 SOUTHBOUND DIRECTION SEE FIBER DISTRIBUTION DETAIL FOR SPLICING INFORMATION VAULT LOCATIONS CAN BE ADJUSTED WITH THE APPROVAL OF WSDOT ENGINEER.

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SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

223 OF 357 SHEETS

PLAN REF NO ITBX1

**BOX LOCATION DETAILS** 

#### **PULL BOX SCHEDULE**

SHEET NO.	BOX NO.	LINE	STATION	OFFSET	NOTES
ITS1A	PB-01	C-LINE	27+55	25' LT*	
ITS1A	PB-02	C-LINE	33+23	25' LT*	
ITS1A	PB-03	C-LINE	34+99	25' LT*	
ITS1A	PB-04	C-LINE	37+91	25' LT*	
ITS2B	PB-05	C-LINE	55+98	25' LT*	
ITS2B	PB-06	C-LINE	63+60	25' LT*	
ITS3	PB-07	C-LINE	73+60	25' LT*	
ITS3A	PB-08	C-LINE	91+56	25' LT*	
ITS4	PB-09	C-LINE	94+18	25' LT*	
ITS4	PB-10	C-LINE	105+40	75' RT	
ITS4B	PB-11	C-LINE	111+22	25' LT*	
ITS5	PB-12	C-LINE	121+78	25' LT*	
ITS5	PB-13	C-LINE	131+84	25' LT*	
ITS5	PB-14	C-LINE	143+00	25' LT*	
ITS6B	PB-15	C-LINE	169+04	25' LT*	
ITS7	PB-16	C-LINE	179+08	25' LT*	
ITS7	PB-16A	C-LINE	185+20	52' LT	
ITS7A	PB-17	C-LINE	189+04	25' LT*	***POWER TO XF
ITS7A	PB-17A	C-LINE	191+00	53' LT	***POWER TO XF
ITS7A	PB-17B	C-LINE	198+60	42' LT	***POWER TO XF
ITS8	PB-18	C-LINE	199+15	25' LT*	
ITS8	PB-18A	C-LINE	206+00	51' LT	***POWER TO XF
ITS8	PB-19	C-LINE	209+30	25' LT*	
ITS8A	PB-19A	C-LINE	213+80	42' LT	***POWER TO XF
ITS8A	PB-18B	C-LINE	213+80	134' LT	***POWER TO XF
ITS9	PB-20	C-LINE	229+22	25' LT*	
ITS9A	PB-21	C-LINE	240+47	162' RT	

#### **PULL BOX SCHEDULE**

SHEET NO.	BOX NO.	LINE	STATION	OFFSET NOTES	
ITS9A	PB-21A	C-LINE	240+00	25' LT*	
ITS9A	PB-22	C-LINE	250+67	48' RT	
ITS10	PB-23	C-LINE	256+23	25' LT*	
ITS10A	PB-24	C-LINE	266+23	25' LT*	
ITS10A	PB-25	C-LINE	276+18	25' LT*	
ITS14	PB-27	C-LINE	359+33	54' RT	
ITS16	PB-28	C-LINE	410+00	45' RT	
ITS17	PB-30	C-LINE	440+20	50' <b>1⁄0</b> ' LT∕₃	
ITS19	PB-33	R1-LINE	523+62	54' LT	
ITS20	PB-34	R1-LINE	535+57	21' LT	
ITS20A	PB-35	R1-LINE	541+79	26' LT	
ITS21	PB-36	R2-LINE	665+31	12' LT	
ITS21	PB-37	R2-LINE	665+14	41' RT	
ITS21	PB-38	R2-LINE	662+75	35' RT	
ITS21	PB-39	R2-LINE	658+06	42' RT	
ITS21	PB-40	R2-LINE	654+50	63' RT	
ITS22	PB-41	R2-LINE	652+86	56' RT	
ITS22	PB-42	R2-LINE	648+95	51' RT	
ITS22	PB-43	R2-LINE	648+50	89' RT	
ITS22	PB-44	R2-LINE	645+82	58' RT	
ITS22	PB-45	R2-LINE	643+69	39' RT	
ITS22	PB-46	R2-LINE	638+50	50' RT	
ITS22	PB-47	R2-LINE	633+34	53' RT	
ITS23	PB-48	R2-LINE	622+00	50' RT	
ITS4	PB <b>-</b> 49	C-LINE	104+25	68' RT	
ITS2	PB-50	C-LINE	47+19	296' RT	
ITS2	PB-51	C-LINE	47+76	307' RT	



#### MEASUREMENT IS TO CENTER OF BOX.

\* OFFSET DISTANCE MEASURE OFF FROM EDGE OF PAVEMENT SR 167 SOUTHBOUND DIRECTION. PULL BOX LOCATIONS CAN BE ADJUSTED WITH THE APPROVAL OF WSDOT ENGINEER.

\*\*\* ELECTRICAL BOXES "POWER TO XF"

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SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

BOX LOCATION DETAILS

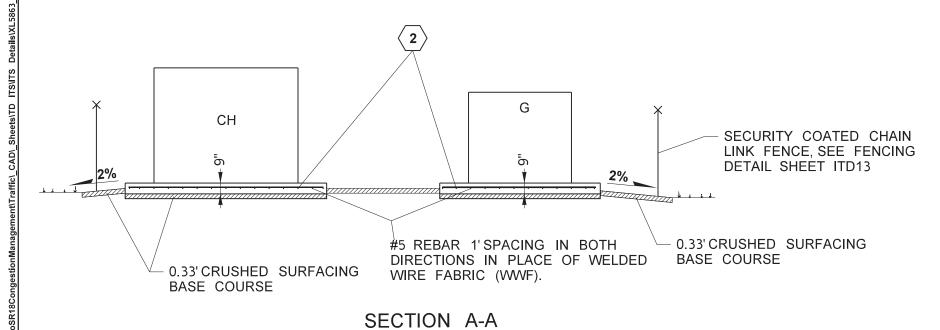
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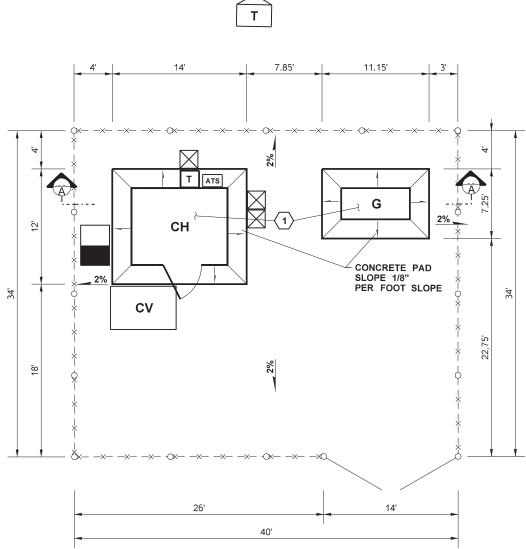
SHEET
224
OF
357
SHEETS

Projects/16/15.75\_SR16/SR41010SR18CongestionManagement/Traffic\_CAD\_Sheets/1D ITSUTS\_Details/KL5863\_PS\_TIBX.2.

#### **CONSTRUCTION NOTES:**

- 2 REINFORCING STEEL SHALL BE 0.16'ABOVE BOTTOM SURFACE OF CONCRETE.





## **HUB INSTALLATION DETAILS**

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	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				l



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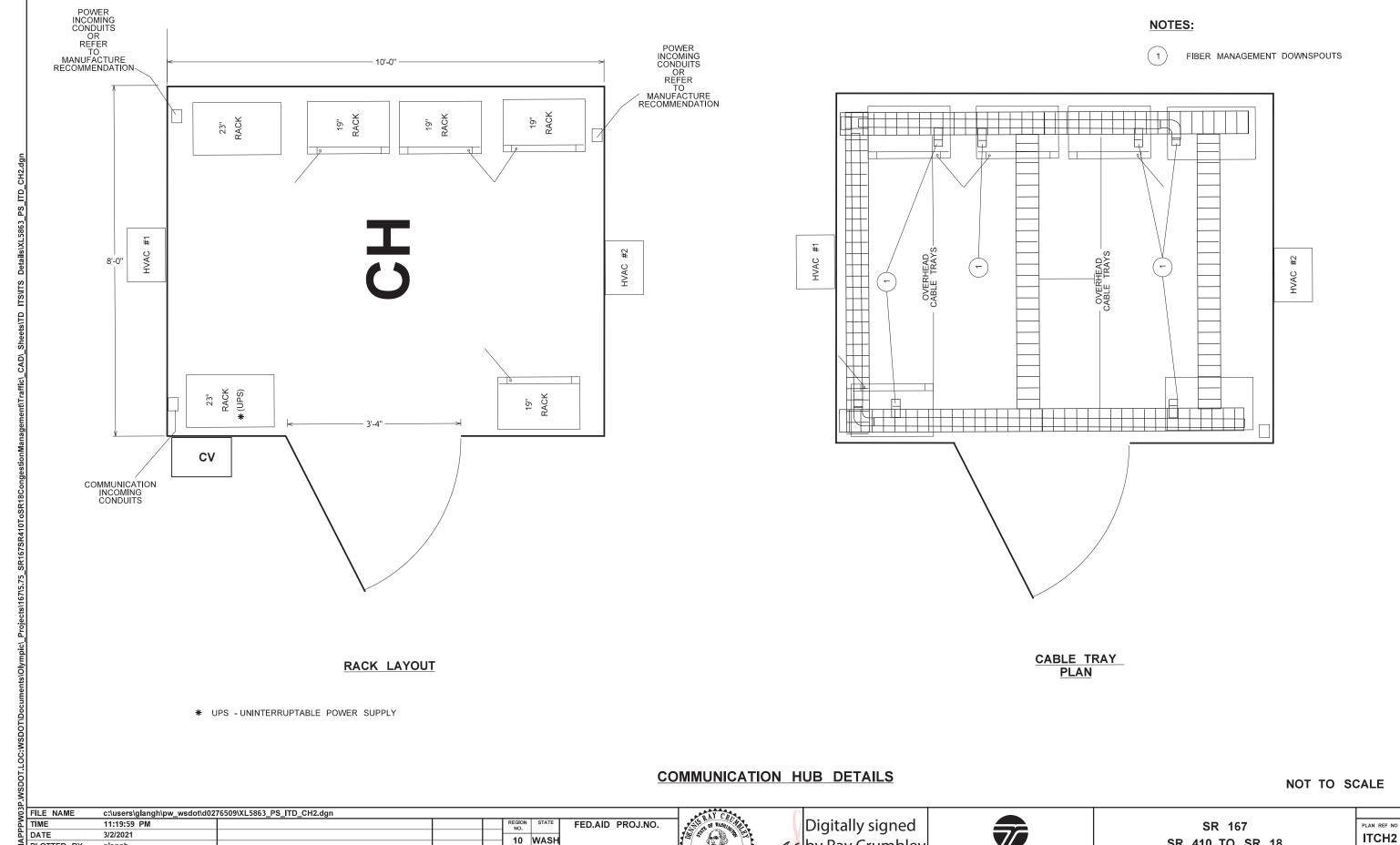
7
Washington State Department of Transportation
Department of Transportation

SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

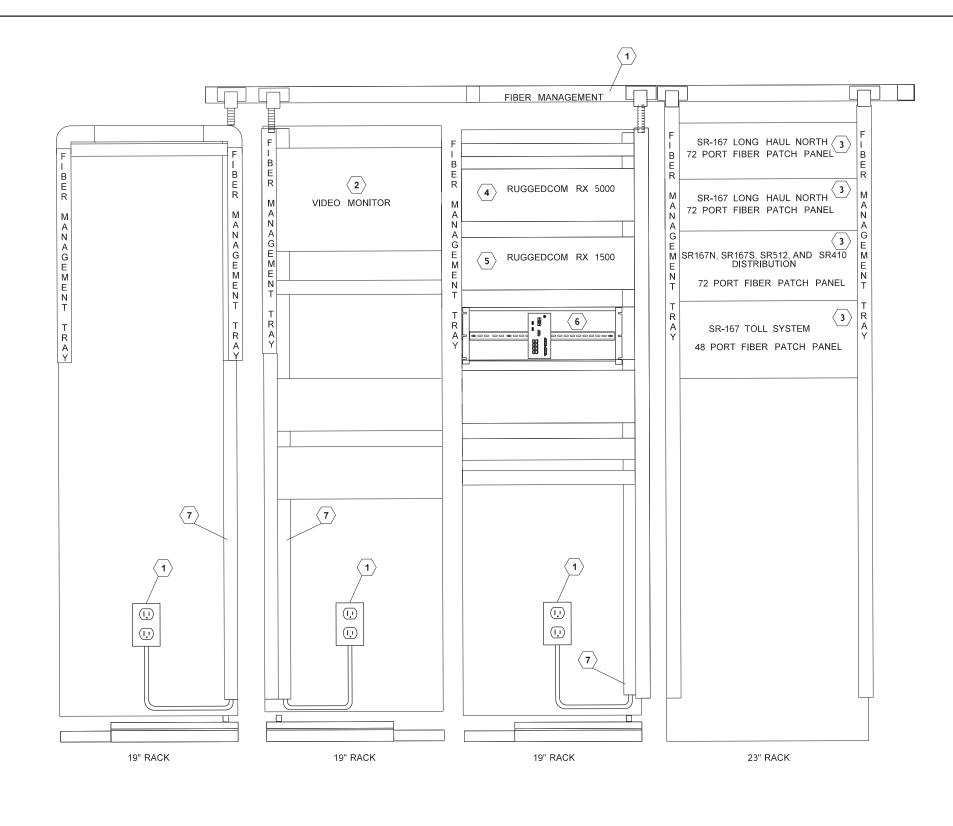
PLAN REF NO ITCH1

SHEET 225
OF 357
SHEETS

HUB DETAILS



DATE 3/2/2021 10 WASH by Ray Crumbley SR 410 TO SR 18 PLOTTED BY giangh DESIGNED BY H. GIANG 18C526 **CONGESTION MANAGEMENT** Washington State
Department of Transportation 226 OF Date: 2021.03.03 ENTERED BY H. GIANG CHECKED BY R. CRUMBLEY LOCATION NO. 357 SHEETS 06:31:06 -08'0<u>0</u> 02/24/2021 HG DATE BY XL5863 PROJ. ENGR. L. MOODY AD3 - REPLACEMENT SHEET **HUB DETAILS** REGIONAL ADM. J. WYNANDS



# CONSTRUCTION NOTES

- 1 INSTALLED BY THE MANUFACTURER.
- 2 INSTALL COLOR MONITOR.
- $\fbox{3}$  INSTALL FIBER OPTIC PATCH PANEL.
- 4 INSTALL RUGGEDCOM RX 5000
- 5 INSTALL RUGGEDCOM RX 1500
- (6) INSTALL RUGGEDCOM RS 900G
- $\fbox{7}$  install plug strip with a minimum of 12 outlets. Connect power cord to wall outlet.

#### RACK BAYS DETAILS

NOT TO SCALE

FILE NAME	c:\users\glangh\pw_wsdot\d02	76509\XL5863_PS_ITD_CH3.dgn					
TIME	10:58:50 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	1/18/2021					WASH	
PLOTTED BY	giangh				10	WASH	
DESIGNED BY	H. GIANG				JOB N	UMBER 526	
ENTERED BY	H. GIANG				100	,526	
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	L. MOODY						XL5863
REGIONAL ADM	I WYNANDS	REVISION	DATE	RV			



Jan 19 2021 11:14 AM



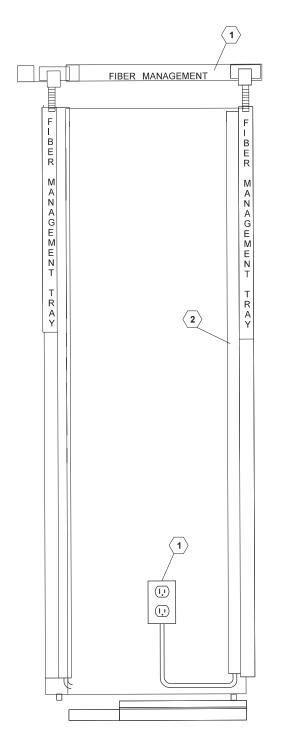
7/	
Washington State Department of Transportation	
-	

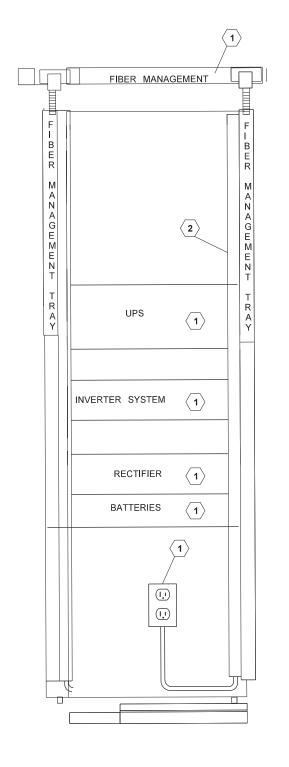
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

HUB DETAILS

SHEET
227
OF
357
SHEETS

ITCH3





# CONSTRUCTION NOTES

- $igstar{1}igstar{1}$  installed by the manufacturer.
- igg(2igg) install plug strip with a minimum of 12 outlets.

# RACK BAYS DETAIL

NOT TO SCALE

FILE NAME	c:\users\glangh\pw_wsdot\d02	76509\XL5863_PS_ITD_CH4.dgn						
TIME	10:58:54 PM				REGION NO.	STATE	FED.AID PROJ.NO.	1
DATE	1/18/2021					WASH		
PLOTTED BY	giangh				10	WASH		
DESIGNED BY	H. GIANG				JOB N	526		
ENTERED BY	H. GIANG				100	526		
CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.	1
PROJ. ENGR.	L. MOODY						XL5863	
REGIONAL ADM	.I WYNANDS	REVISION	DATE	RY				I



Jan 19 2021 11:15 AM



SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

**HUB DETAILS** 

228 OF 357 SHEETS

PLAN REF NO

ITCH4

# **CABINET EQUIPMENT SCHEDULE**

Page 21 OF 21

CHANGE ORDER NO.: 009 CONTRACT NO.: 009636

S:
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							0	0			<u>~</u>														GENERAL NOTES:
		POST			딾		RUGGEDCOM RX 5000	1500	RMC30	WEB-CONTROLLERD	TRAFFIC DATA COLLECTION CONTER		2						S						
		Ш		_	CONTROLLER		\ \times	₩ ₩	2			IL SERVER			PANEL	🚽		ES	AMPLIFIERS		~				
	EQUIPMENT	NO WIL		SHEE.	RO	₩ O	MO	■ O	W   O	R S	AT, ON OE	RV	P A	PA	PA	PATCH PANEL	PA	SWITCHES	"		107			OR	
		NO V			INC	DC .	DC	DC	DC	Z	IS 등 운	SE	를 품	프	౼	౼	౼	<b>X</b>	MP	0	EC	200	112	Ė	
		ND TATI	SEI	AIL	000	3.GE	] []	199	99	ζ.			A	ATC	РАТСН	ATC	ATC	S Q		I K	≧	X	X	MONITOR	
		FOUNDATION LOCATION LINE STATION / MILE	OFFSET	DETAIL	VMS	RUGGEDCO RS900G	30°	RUGGEDCOM	RUGGEDCOM		TRAFFIC DATA COLLECTION CONT	SERIAL	MOXA NPORT ST 96 PATCH PANEL	72 PATCH PANEL	48 P	24 P	12 PATCH PANEL	LOAD	LOOP	CONTROLLER	PoE INJECTOR	CLICK	CLICK	32"	
SHEET	<b>↓</b> CABINET IDENTIFICATION <b>↓</b>			_			_	<del>                                     </del>	<del>                                     </del>	13	- 1			<u> </u>		``	Ť	<del>                                     </del>	<del>                                     </del>		<del>                                     </del>			1,	
	167-VC-00554			ITD4		1										1					1				
	167-VM-00554	C 27+38	55.3' RT	ITD3	1						,														_
	167-DS-00554	0 27 - 00	00.0 101	ITD4						15	,									1					_
-	PTR-R112									<	1	1	4												
	167-VC-00600	C 48+50	67' RT	ITD4					-	15			$\perp$			1					1				  -
	167-DS-00600					1		<u> </u>	-	15	,	+			ļ.,			-	7	1			-		-
-	167-CH-00635	C 67+90	208' LT	ITCH1-ITCH4		1	1	1	-	15	,	+		3	1			_					-	1	
ITS3A	167-DS-00667	C 83+79	66' RT			1			<u> </u>	1 <	)					1			6	1			<u> </u>		
ITS4	167-DS-00707	C 104+25	47' RT	ITD8		1			1		)	+	4			1			9	1		2	6		
	167-VC-00707			ITDO		4			1		)	+	+-			<b>1</b>	-		_	4	1				REMOVE AND REPLACE EXISTING VC CABINET
ITS5	167-DS-00759	C 132+79	32' LT	ITD8		1			1	+<	)	+	+			1			6	1	1	2	4		-
$\vdash$	167-VC-00759			ITD4					+	_ <	)	+	+												
	167-VC-00803 167-DS-00803	C155+43	63' RT	ITD4		1			1	+	)					1			6	1	1	2	4		-
ITS7	167-DS-0873	C 185+01	17' LT			1					)					1			6	1	1				
ITS8A	167-DS-00913	C 214+89	70' RT			1													6	1					
	167-DS-00930	C 239+51	128 RT			1													7	1	1				
ITS9A	167-VC-00930	0 239 31	1201(1	ITD3																					REMOVE AND REPLACE EXISTING VC CABINET
	167-RM-00975	R3 807+80	38 LT	ITD5		1												1	10	1	1				
ITS11A	167es01053																		1						
	167es01086																		1						
	167-TC-01098	C 311+75	72 RT	ITD6			1	1							5	1	1		3						
	167-U-01098			ITD7						1									_				<u> </u>		
	167es01127									$\rightarrow$		_							1			1	3		
	167es01169								-	+>		+	+						1			1	3		_
	167es01215 167es01245								1	+>	-	+	+					+	1			1	3		
	167es01245 167es01287								-		<del> </del>	+	+-					+	1			1	3		-
	167es01327									+		+	+						1			1	3		-
	167es01375									+		+	+					+	1			2	3		
	512-VC-01143			ITD4		1				-		+	+					+	+ •		1		-		-
	512-VM-01143	R1 541+74	106' LT	ITD3	1					15		+	+								<del>  '</del>				1
$\overline{}$	410-VC-00991		+	ITD4	<del>                                     </del>					+5						1	+	+	+		1		+		
	410-DS-00991	R2 614+09	71' RT			1				+5								+	4	1	+ •		+		1
	410-VM-00982	R2 621+97	55' RT	ITD3	1					+5								+	+ -	†			$\vdash$		
1 1								$\bigvee$	$\bigvee$	1/1			$\mathcal{N}$				$\bigvee$	$\forall \vee$							EXISTING HAR SIGN
	SHEET TOTAL				3	13	2	+	+	+		1	<del></del>	3	6	+	+	+		_	10	-	-		
	3.12201AL													<del></del>			<u> </u>	<u> </u>	, 0			1.7	1 30		<u>.                                    </u>

FILE NAME	c:\users\tolmane\d0397467\XL5	5863_PS_ITD_DS1.dgn						ſ
TIME	1:48:18 PM				REGION NO.	STATE	FED.AID PROJ.NO.	ı
DATE	3/12/2021				-	WASH		l
PLOTTED BY	tolmane				10	WASH		Š
DESIGNED BY	H. GIANG				JOB N	UMBER 2526		1
ENTERED BY	H. GIANG	CO #09 - MAINTENANCE PULLOUT REVISIONS	10/03/2022	AD	100	,526		l
CHECKED BY	R. CRUMBLEY	AD5 - ADDED NOTE	03/11/2021	СН	CONTR	RACT NO.	LOCATION NO.	ľ
PROJ. ENGR.	L. MOODY	AD3 - REPLACEMENT SHEET	02/24/2021	HG	1		XL5863	l
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	ву	1			ı



Digitally signed by Ray Crumbley Date: 2021.03.12 14:00:38 -08'00'



SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

CABINET EQUIPMENT SCHEDULE

PLAN REF NO ITD1

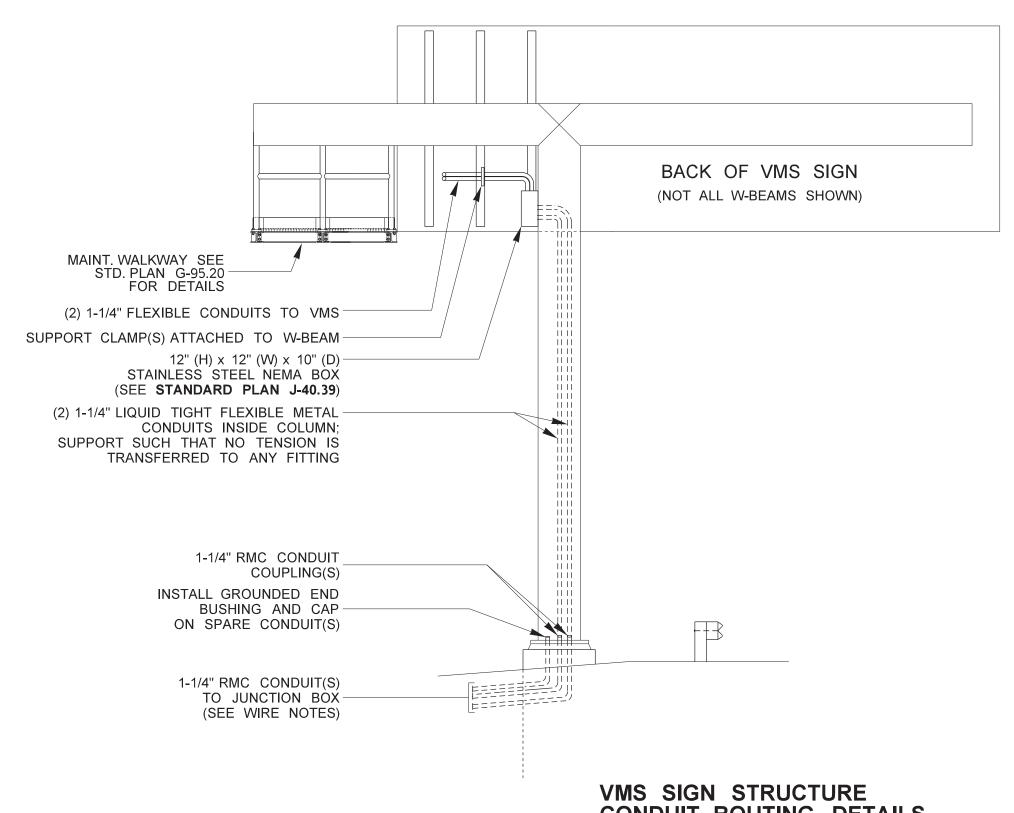
SHEET

229

OF

357

SHEETS



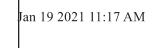
**CONDUIT ROUTING DETAILS** 

RINOTE: SEE SIGN BRIDGE PLANS FOR SIGN STRUCTURE DETAILS

NOT TO SCALE

-									
8	FILE NAME	c:\users\glangh\pw_wsdot\d02	76509\XL5863_PS_ITD_DS2.dgn						
ğ	TIME DATE	10:59:03 PM				REGION NO.	STATE	FED.AID PROJ.NO.	
ם	DATE	1/18/2021					WASH		
⋛	PLOTTED BY	giangh				10	WASH		
Ž	DESIGNED BY ENTERED BY	H. GIANG				JOB N	526		
ğ	ENTERED BY	H. GIANG				100	,526		
₹	CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.	
	PROJ. ENGR.	L. MOODY						XL5863	
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				





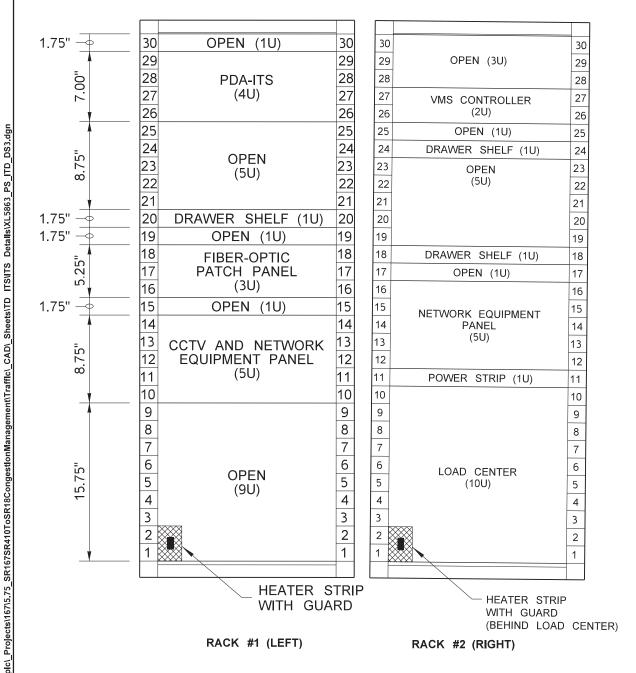


	SR 167
	SR 410 TO SR 18
ite ortation	CONGESTION MANAGEMENT

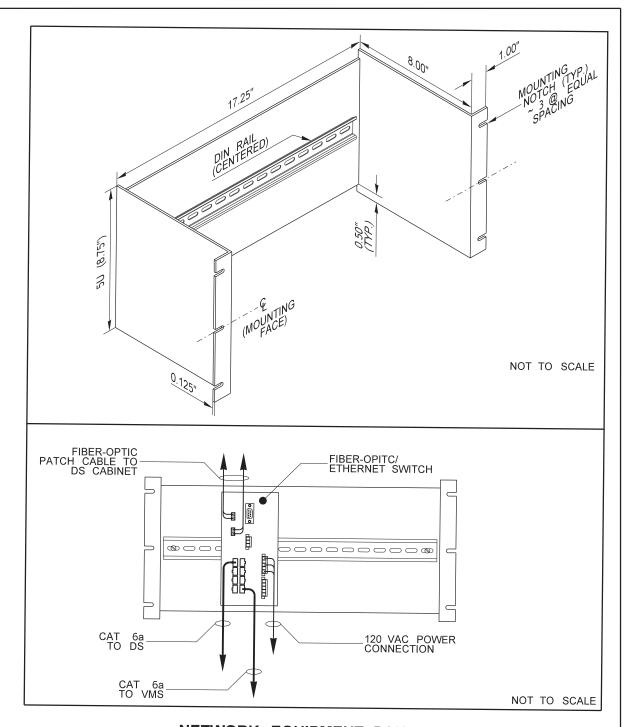
VMS DETAILS

230 OF 357 SHEETS

PLAN REF NO ITD2



**RACK LAYOUTS - FRONT VIEW** 



#### NETWORK EQUIPMENT PANEL DETAIL

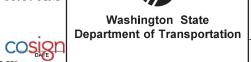
#### **NOTES:**

- 1. CABINET HOUSING SHALL BE TYPE 334D, DOUBLE WIDTH CABINET, AS SHOWN IN DETAIL STANDARD PLAN J-12.16.
- BUS BARS SHALL BE CAPABLE OF BEING USED WITHOUT INSTALLING LUGS ON FIELD WIRES.
- 3. EQUIPMENT SHALL BE LABELED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE DETAILS SHOWN ON SHEET ITD5.

ا≳ا	FILE NAME	c:\users\giangh\pw_wsdot\d02	76509\XL5863_PS_ITD_CH3.dgn					
إٍ≳ٍ	TIME	10:58:51 PM				REGION NO.	STATE	FED.AID PROJ.NO.
إخ	DATE	1/18/2021					WASH	
È∣	PLOTTED BY	glangh				10	WASH	
اذٍ	DESIGNED BY	H. GIANG				JOB N	UMBER	
욁	ENTERED BY	H. GIANG				100	526	
訓	CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
	PROJ. ENGR.	L. MOODY						XL5863
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			



Jan 19 2021 11:17 AM

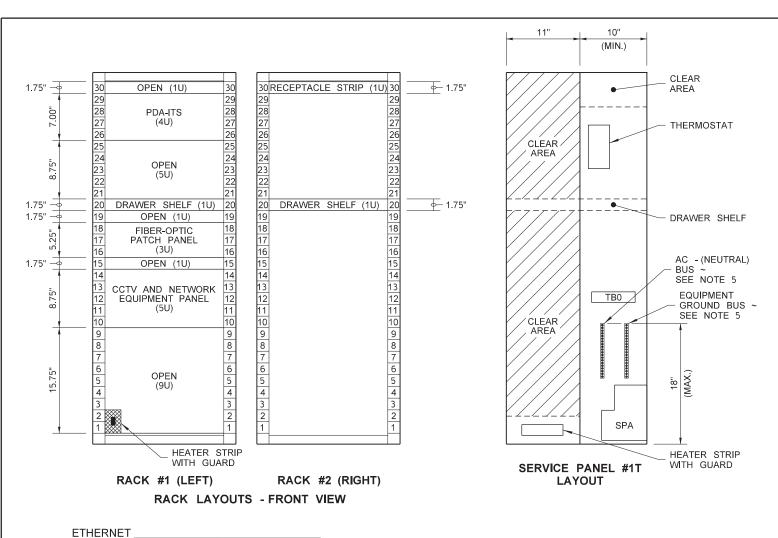


SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

VMS CABINET DETAILS

SHEET
231
OF
357
SHEETS

PLAN REF NO



**®** 

INJECTOR

0

**CABLES** 

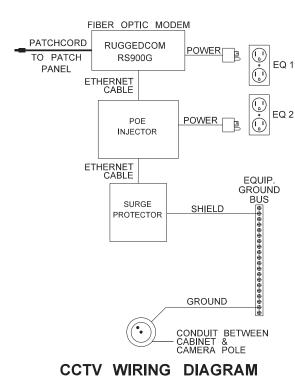
CAMERA SURGE PROTECTOR

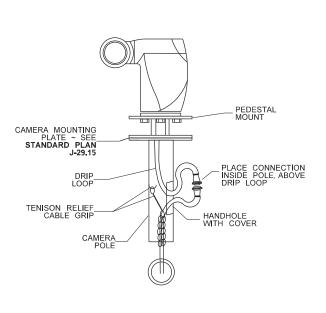
CAMERA CONTROL CABLE (CAT 5e) DRAIN WIRE

GROUND

#### NOTES

- 1. Cabinet housing shall be a Type 334D, double-width cabinet.
- General cabinet equipment shall meet the requirements of and be constructed in accordance with the California Department of Transportation (CalTrans) Transportation Electrical Equipment Specifications (TEES) as currently published, including all errata, with modifications as shown here and described in Standard Specification Section 9-29.13(10). Pre-Terminated Fiber-Optic Patch Panel field installed separately.
- 3. Service Panel #1D shall meet the requirements of Service Panel #1 in the TEES, with the modifications shown here.
- 4. Bus Bars shall be capable of being used without installing lugs on field wires.
- 5. See **SHEET ITD8** for 5U RECESSED MOUNTING PANEL WITH DIN RAIL details not shown here.





TYPICAL CCTV MOUNTING DETAIL

FILE NAME	c:\users\glangh\pw_wsdot\d02	76509\XL5863_PS_ITD_DS4.dgn						
TIME	10:59:08 PM				REGION NO.	STATE	FED.AID PROJ.NO.	
DATE	1/18/2021					WASH		
PLOTTED BY	giangh				יי ן	WASH		
DESIGNED BY	H. GIANG				JOB N	0526		
ENTERED BY	H. GIANG				١٥٠	,526		
CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.	
PROJ. ENGR.	L. MOODY				l		XL5863	
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY	l			



FIBER-OPTIC -PATCH CABLE TO PATCH PANEL

DIN RAIL REDUCED TO 6" IN LENGTH

5U RECESSED MOUNTING

NOT TO SCALE

PANEL WITH DIN RAIL

\_FIBER-OPITC/ ETHERNET SWITCH

120 VAC POWER

an 19 2021 11:17 AM



Washington State	
epartment of Transportation	
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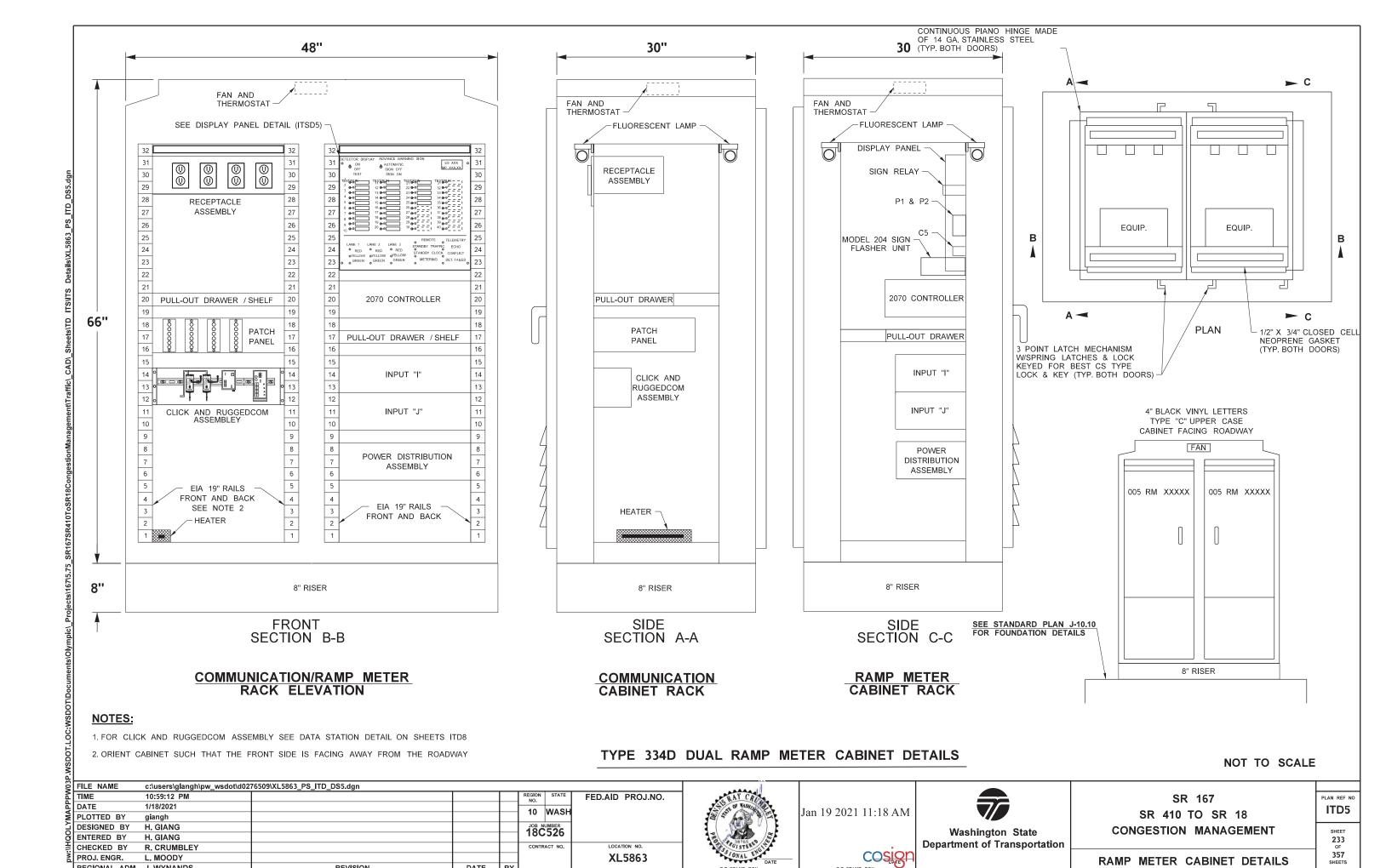
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

**CCTV CABINET DETAILS** 

232 OF 357 SHEETS

PLAN REF NO

ITD4



P.E. STAMP BOX

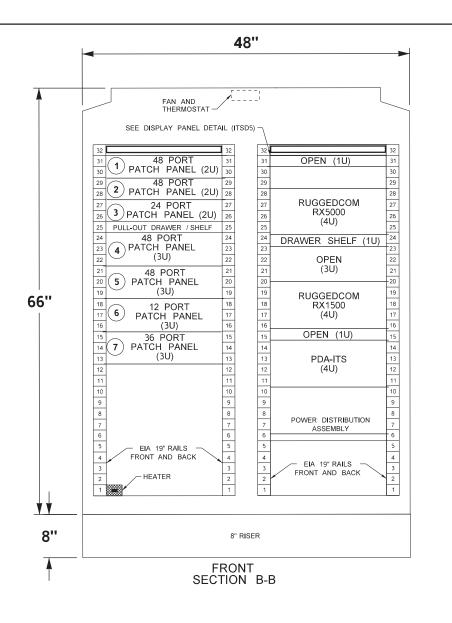
DATE

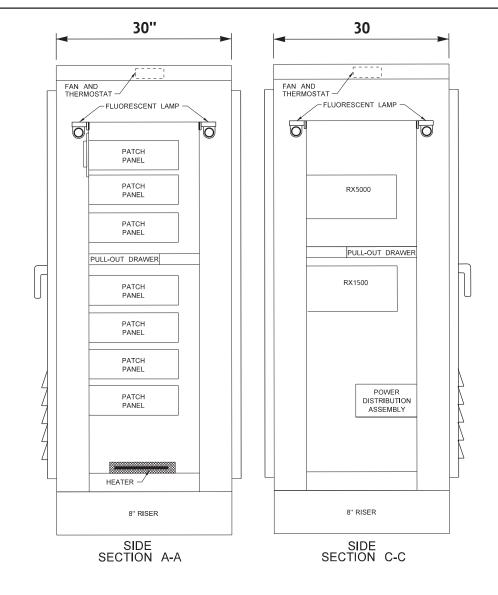
REVISION

REGIONAL ADM. J. WYNANDS

BY

RAMP METER CABINET DETAILS





CONTINUOUS PIANO HINGE MADE OF 14 GA. STAINLESS STEEL (TYP. BOTH DOORS)

B

EQUIP.

B

PLAN

3 POINT LATCH MECHANISM WSPRING LATCHES & LOCK KEYED FOR BEST CS TYPE LOCK & KEY (TYP. BOTH DOORS)

# 4" BLACK VINYL LETTERS TYPE "C" UPPER CASE CABINET FACING ROADWAY FAN 005 RM XXXXX 167 TC XXXXX SEE STANDARD PLAN J-10.10 FOR FOUNDATION DETAILS 8" RISER

#### NOTES

- (1) 48 PATCH PANEL NWR MAINLINE NORTH LC/UPC CONNECTORS
- (2) 48 PATCH PANEL NWR DISTRIBUTION NORTH LC/UPC CONNECTORS
- (3) 24 PATCH PANEL TOLL SOUTH LC/UPC CONNECTORS
- (4) 48 PATCH PANEL OR MAINLINE SOUTH (1-48) ST/ST CONNECTORS
- (5) 48 PATCH PANEL OR MAINLINE SOUTH (49-96) ST/ST CONNECTORS
- (6) 12 PATCH PANEL OR DISTRIBUTION SOUTH ST/ST CONNECTORS
- (7) 36 PATCH PANEL OR DISTRIBUTION 8TH ST ST/ST CONNECTORS

#### TYPE 334D DUAL TERMINAL CABINET DETAILS

c:\users\glangh\pw\_wsdot\d0276509\XL5863\_PS\_ITD\_DS6.dgn FILE NAME TIME 9:29:02 AM REGION NO. FED.AID PROJ.NO. DATE 3/3/2021 10 WASH PLOTTED BY giangh DESIGNED BY H. GIANG 18C526 ENTERED BY H. GIANG CHECKED BY R. CRUMBLEY CONTRACT NO. LOCATION NO. XL5863 PROJ. ENGR. AD3 - REPLACEMENT SHEET L. MOODY 02/24/2021 HG DATE BY REGIONAL ADM. J. WYNANDS



Digitally signed by Ray Crumbley Date: 2021.03.03 09:54:44 -08'00'

Washington State
Department of Transportation

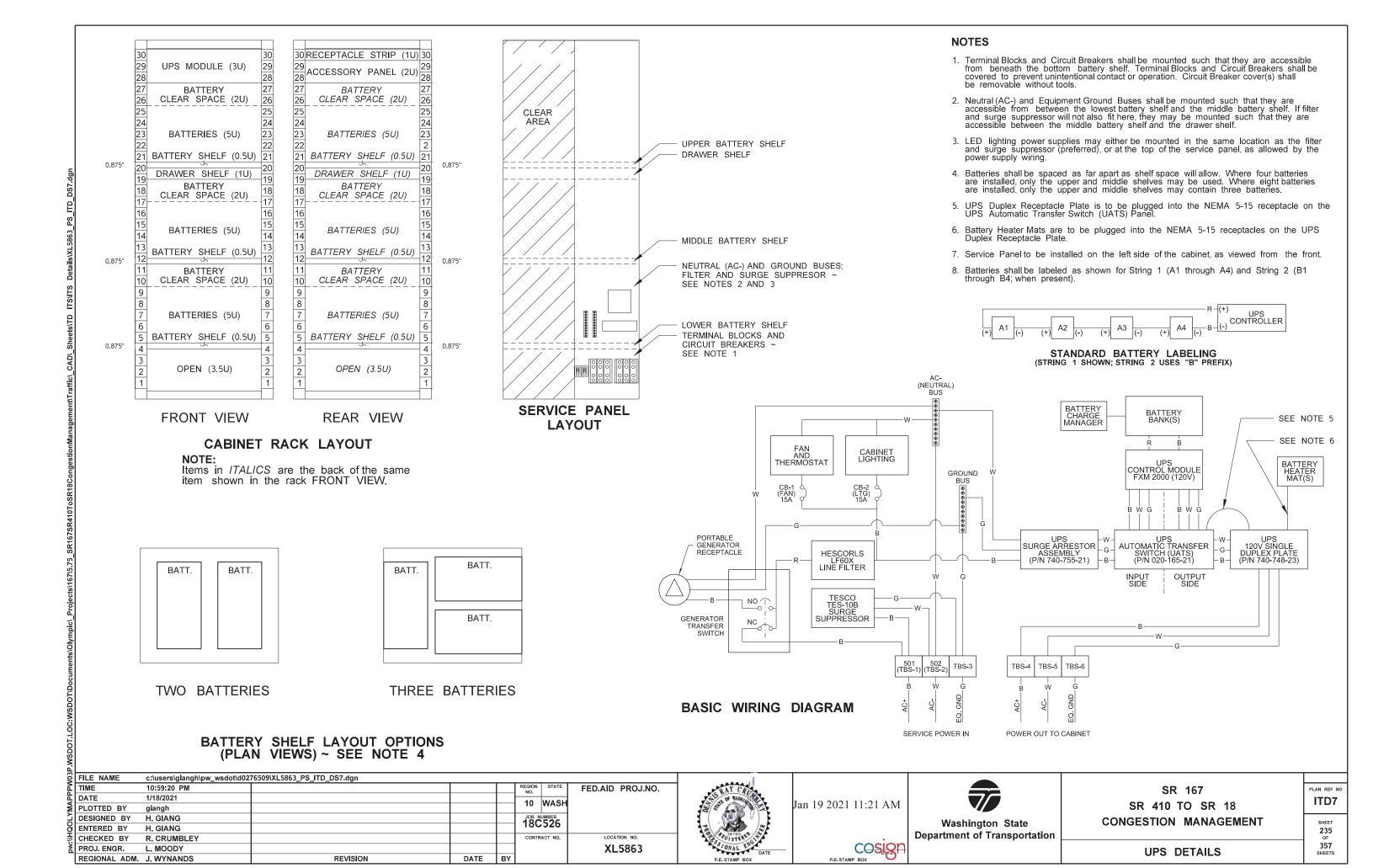
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

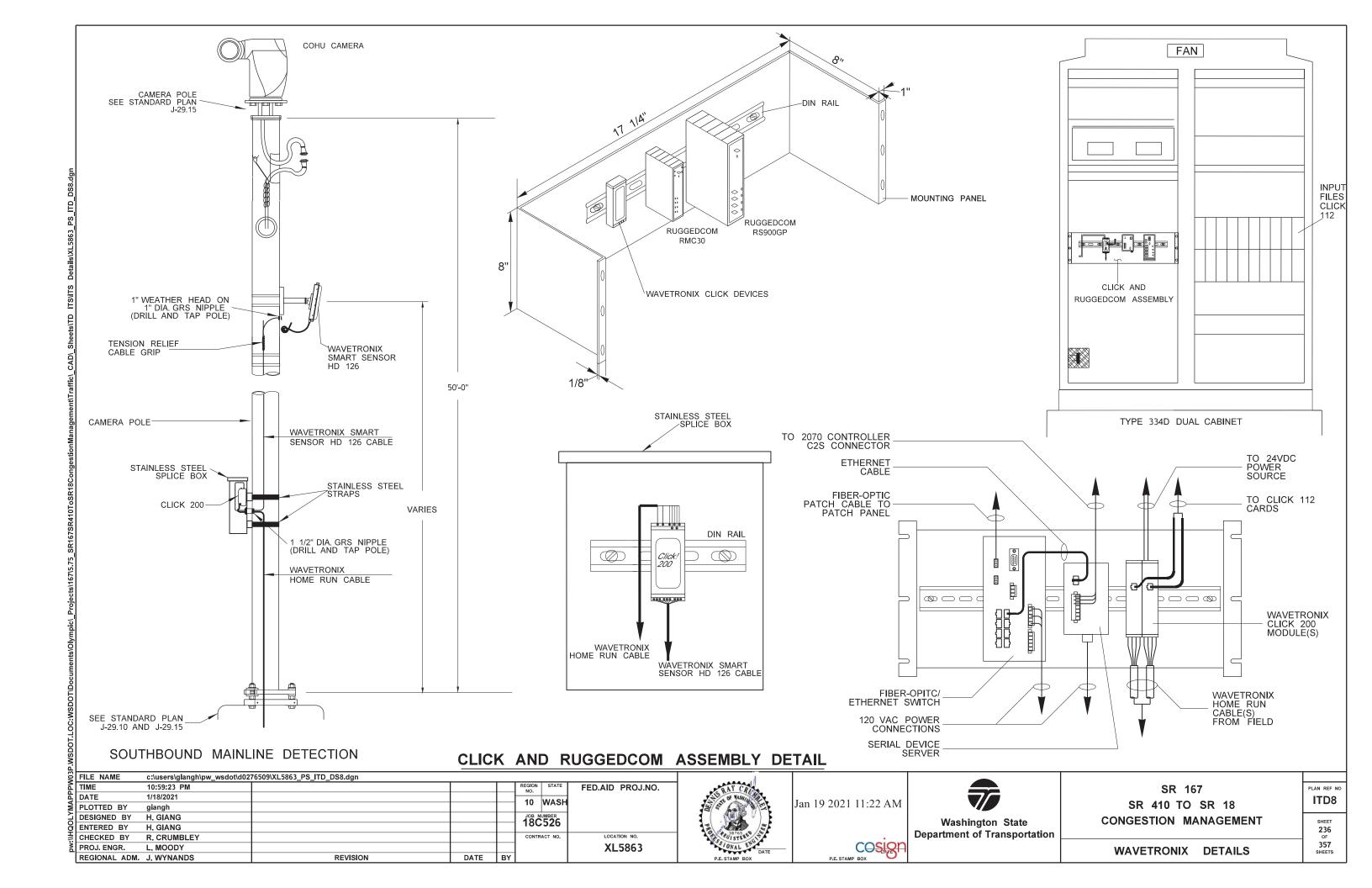
TERMINAL CABINET DETAILS

SHEET 234 OF 357 SHEETS

PLAN REF NO

ITD6





# **CABINET INPUT WIRE TERMINATIONS**

INPUT	FILE	TB2	DETECTOR ID	DETECTOR ID	TB5	INPUT FILE
DET. 1	I1-D	- TB2-1 - B -		F	TB5-1	I10-D DET. 19
I1-U	I1-E	TB2-2 -W-	_MN_A_1	MNH3 V	V- TB5-2	I10-E   I10-U
DET. 2	I1-J	− TB2-3 − B −	MNI O 4	MAUL 2	TB5-3	I10-J DET. 20
I1-L	I1-K	TB2-4 -W-	_MN_Q_1	MNH_3	V- TB5-4	I10-K I10-L
DET. 3	I2-D -	TB2-5 - B -	MN D 4		TB5-5	I11-D DET. 21
I2-U	12-E	TB2-6 -W-	_MN_D_1	L <u> </u>	V— TB5-6	I11-E I11-U
DET. 4	I2-J	− TB2-7 − B −	MN D 4	E	TB5-7	I11-J DET. 22
I2-L	12-K	TB2-8 -W-	_MN_P_1	L	V— TB5-8	I11-K   I11-L
DET. 5	13-D	− TB2 <b>-</b> 9 − B−	MNI A 2	E	TB5-9	I12-D DET. 23
I3-U	13-E	TB2-10 -W-	_MN_A_2	L <u> </u>	V─ TB5-10	I12-E   I12-U
DET. 6	13-J	TB2-11 — B —	MN O 2		TB5-11	I12-J DET. 24
13-L	13-K	TB2-12 -W-	_MN_Q_2	L	V— TB5-12	I12-K I12-L

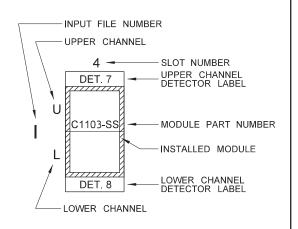
INPUT	FILE	TB3			TB6	INPUT FILE
DET. 7	14-D	TB3-1	B MN D 2	В-	TB6-1	113-D DET. 25
14-U	14-E -	TB3-2		LW-	TB6-2	I13-E I13-U
DET. 8	14-J	TB3-3	B MN D 2	В-	TB6-3	I13-J DET. 26
14-L	14-K	TB3-4		LW-	TB6-4	- I13-K I13-L
DET. 9	15-D —	TB3-5	B MNHA 3	В-	TB6-5	I14-D DET. 27
15-U	15-E -	TB3-6	W—   _ININHA_3	LW-	TB6-6	I14-E I14-U
DET. 10	15-J —	TB3-7	B MNHQ 3	B_	TB6-7	I14-J DET. 28
15-L	15-K	TB3-8	WNINHQ_3	LW-	TB6-8	- I14-K   I14-L
DET. 11	I6-D	TB3-9	B MNHD 3	В-	TB6-9	J1-D DET. 29
I6-U	I6-E	TB3-10	-M   _IMIMUD_3	LW-	TB6-10	J1-E J1-U
DET. 12	16-J	TB3-11	B MNHP 3	В-	TB6-11	J1-J DET. 30
I6-L	16-K	TB3-12	WMINUP_3	LW-	TB6-12	J1-K J1-L

INPUT	FILE	TB4				TB7	INPU	T FILE
DET. 13	17-D -	TB4-1	⊢в—	MMN 1	В-	TB7-1	J2-D	DET. 31
I7-U	17-E	TB4-2	⊢w—	IVIIVIIN I	LW	TB7-2	J2-E	J2-U
DET. 14	17-J	TB4-3	⊢в—	MN S1	B-	TB7-3	J2 <b>-</b> J	DET. 32
17-L	17-K	TB4-4	⊢w—	_IVIIN51	LW-	TB7-4	J2-K	J2-L
DET. 15	18-D	TB4-5	⊢в—	MMN 2	В-	TB7-5	J3-D	DET. 33
18-U	18-E -	TB4-6	⊢w—	IVIIVIINZ	LW	TB7-6	− J3-E	J3-U
DET. 16	18-J -	TB4-7	⊢в—	MN S2	В-	TB7-7	J3-J	DET. 34
I8-L	18-K	TB4-8	-w-		LW	TB7-8	J3-K	J3-L
DET. 17	19-D	TB4-9	⊢в—		В-	TB7 <b>-</b> 9	J4-D	DET. 35
I9-U	19-E	TB4-10	⊢w—		LW-	TB7-10	J4-E	J4-U
DET. 18	19-J	TB4-11	⊢в—		В-	TB7-11	J4 <b>-</b> J	DET. 36
19-L	19-K	TB4-12	⊢w—		LW	TB7-12	J4-K	J4-L

INPUT	FILE	TB8		
DET. 37	J5-D -	TB8-1	⊢в—	
J5-U	J5-E	TB8-2	⊢w–	
DET. 38	J5-J	TB8-3	⊢в—	
J5-L	J5-K	TB8-4	-w-	
DET. 39	J6-D -	TB8-5	⊢в—	
J6-U	J6-E -	TB8-6	-w-	
DET. 40	J6-J	TB8-7	⊢в—	
J6-L	J6-K	TB8-8	-w-	
		TB8-9		
0,	20	TB8-10		
7,6		TB8-11		
/ V		TB8-12		

TB9	INPUT FILE
TB9-1	H = I
TB9-2	HTT /
TB9-3	H
TB9-4	HTT / I
TB9-5	
TB9-6	
TB9-7	<i>-</i> ₹8
TB9-8	
TB9-9	H
TB9-10	H771
TB9-11	H7
TB9-12	H/

#### INPUT FILE LAYOUT AND MARKING DETAIL 2 3 12 13 14 10 11 DET. 1 DET. 3 DET. 7 DET 23 DET 25 DET. 27 DET. 5 DET. 9 DET. 11 DET. 13 DET. 15 DET. 17 DET. 19 DET. 21 |c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS|||c1103-SS| DET. 4 DET. 6 DET. 8 DET. 10 | DET. 12 | DET. 14 | DET. 16 | DET. 18 | DET. 20 | DET. 22 | DET. 24 | DET. 26 DET. 28 DET. 37 DET. 39 DET. 29 DET. 31 DET. 33 DET. 35 SLOTS J7 THROUGH DET. 30 DET. 32 DET. 34 DET. 36 DET. 38 DET. 40



INPUT FILE SLOT **LEGEND** 

NOTE: SLOTS LABELED WITH "000" SHALL REMAIN UNLABELED

#### **OUTPUT AND** SIGNAL DISPLAYS **DISPLAY TERMINALS** (R)- R — 6X1 UPPER - O — 6X2 DISPLAY T4-7 611 - R — - G — 6X3 T4-8 612 - O -11,12 T4-9 613 G — -W- 6X6 T4-4 | 621 | R — T4-5 | 622 | O — T4-6 | 623 | G — = R = 6X1 T4-1 631 - R ---LOWER DISPLAY T4-2 632 - O -O = 6X2 T4-3 633 - G -= G == 6X3 } **CABINET OUTPUT TERMINALS** =W= 6X6 BACK OF PDA #3LX TO 1-5c CONTROLLER

FILE NAME	c:\users\glangh\pw_wsdot\d027	76509\XL5863_PS_ITD_DS9.dgn						ı
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DATE	1/18/2021					WASH		
PLOTTED BY	giangh				10	WASH		
DESIGNED BY	H. GIANG				JOB N	10MBER 2526		ı
ENTERED BY	H. GIANG				100	,526		ı
CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.	
PROJ. ENGR.	L. MOODY						XL5863	
DECIONAL ADM	I WYNANDS	PEVISION	DATE	ΒV				



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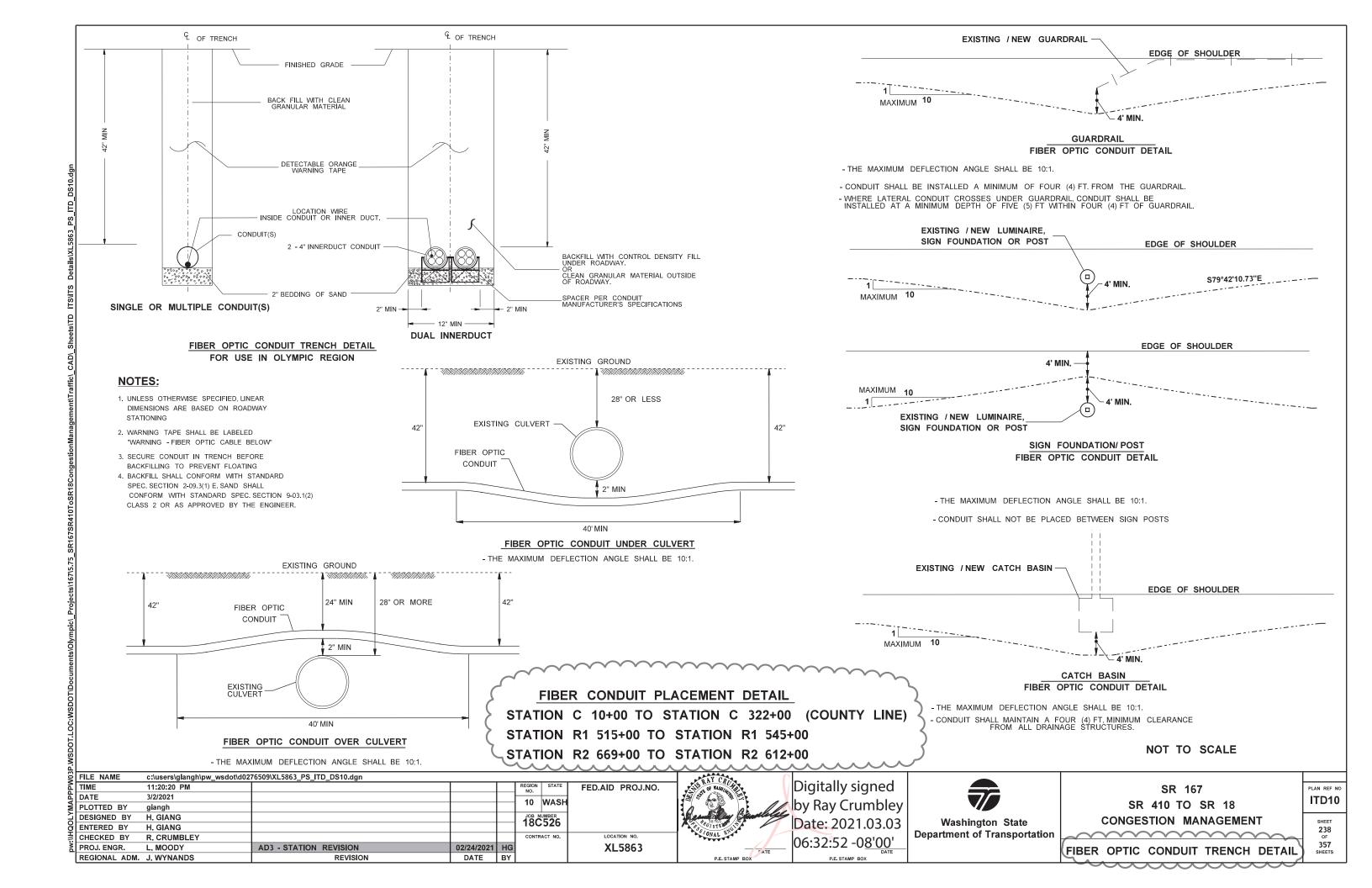
SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

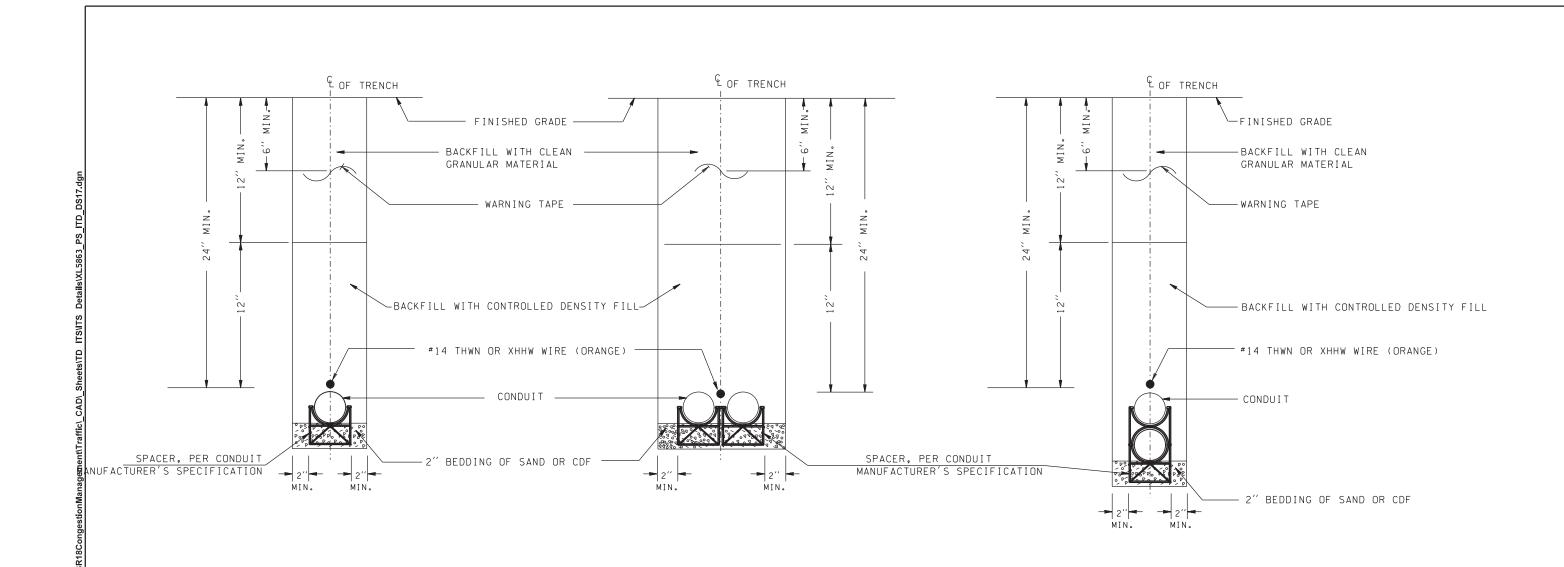
FIELD TERMINALS

237 357 SHEETS

PLAN REF NO ITD9

RAMP METER INPUT/OUTPUT DETAILS





#### NOTES:

- UNLESS OTHERWISE SPECIFIED, LINEAR DIMENSIONS ARE BASED ON ROADWAY STATIONING.
- 2. WARNING TAPE SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- 3. IF A CONFLICT WITH DRAINAGE, OR OTHER UTILITIES ARISE, THE CONTRACTOR SHALL SUBMIT A PLAN FOR RESOLVING THE CONFLICT TO THE ENGINEER.
- 4. INSTALL CONDUIT SPACER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

#### FIBER OPTIC CONDUIT TRENCH DETAIL FOR USE IN NORTHWEST REGION STATION C 322+00 TO C 465+00

#### NOT TO SCALE

ຣີ	FILE NAME	c:\users\glangh\pw_wsdot\d02	76509\XL5863_PS_ITD_DS17.dgn						
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₹	CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.	Ι'
Ѯ	PROJ. ENGR.	L. MOODY	AD3 - ADDED SHEET	02/24/2021	HG			XL5863	
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				



Digitally signed by Ray Crumbley Date: 2021.03.03



SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

FIBER OPTIC CONDUIT TRENCH DETAIL

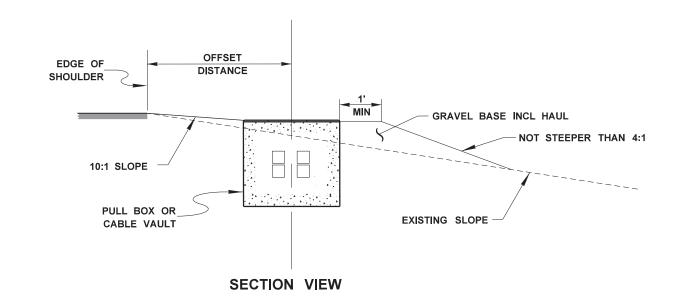
PLAN REF NO ITD10A

238A

DETAIL 357
SHEETS

# **EMBANKMENTS** CASE 2 WIDTH OF BOX OR VAULT MATCH EXISTING 6:1 MIN PULL BOX / CABLE VAULT STATION LOCATION EDGE OF SHOULDER TRAFFIC

**PLAN VIEW** 



#### NOTES

- 1. SEE STANDARD PLAN J-90.10 FOR PULL BOX INSTALLATION DETAILS, CONSTRUCTION METHODS, AND CABLE RACKING SCHEME.
- 2. SEE STANDARD PLAN J-90.20 FOR CABLE VAULT INSTALLATION DETAILS, CONSTRUCTION METHODS, AND CABLE RACKING SCHEME.
- 3. SEE ITBX1 FOR ADDITIONAL PLACEMENT DETAIL, STATIONS AND OFFSET DISTANCES.

## PULL BOX / CABLE VAULT PLACEMENT DETAIL

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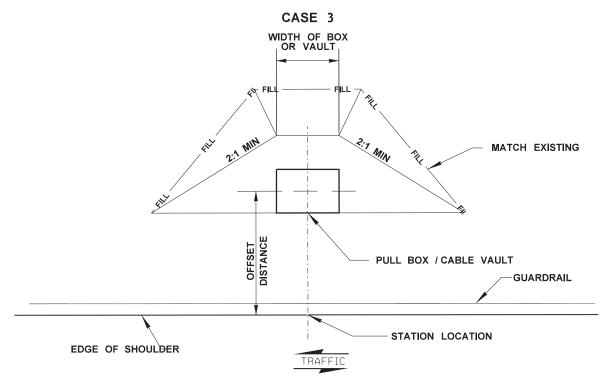


**Washington State Department of Transportation** 

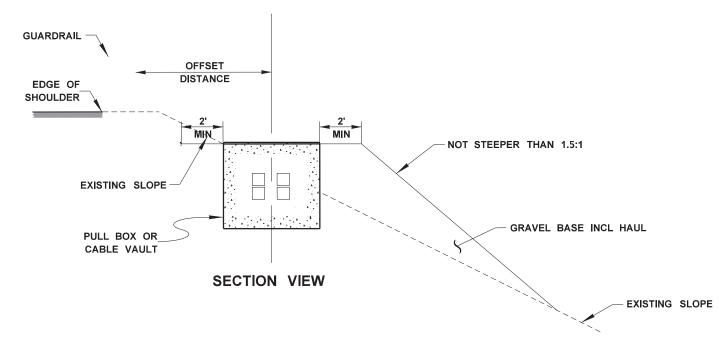
SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

**BOX LOCATION DETAILS** 

EMBANKMENTS BEHIND GUARDRAIL



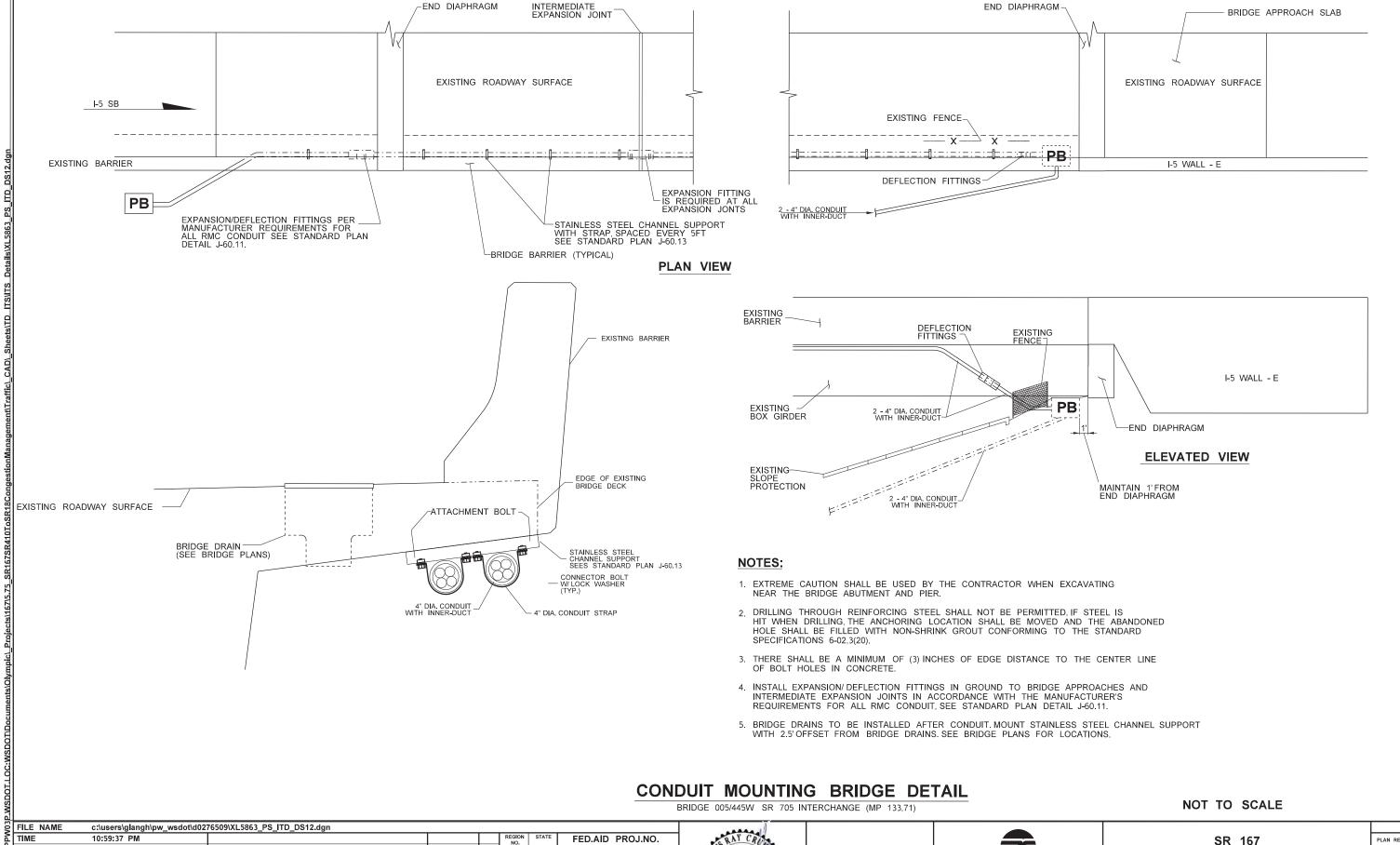
**PLAN VIEW** 



NOT TO SCALE

PLAN REF NO ITD11 239

357 SHEETS



8	FILE NAME	c:\users\giangn\pw_wsdot\du2	76509\XL5863_PS_ITD_DS12.agn					
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5	DATE	1/18/2021				10	WASH	
⋛	PLOTTED BY	giangh				10	WASH	
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β	TIME DATE PLOTTED BY DESIGNED BY ENTERED BY CHECKED BY PROJ. ENGR.	L. MOODY						XL5863
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			



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P.E. STAMP BOX



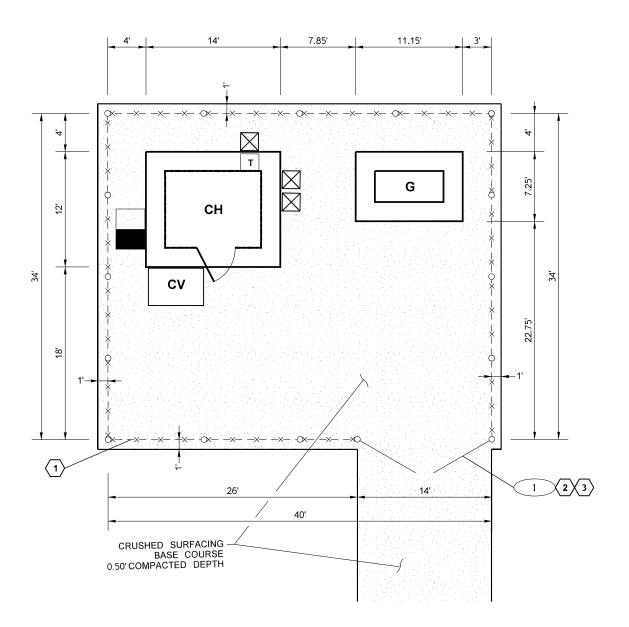
SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

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357

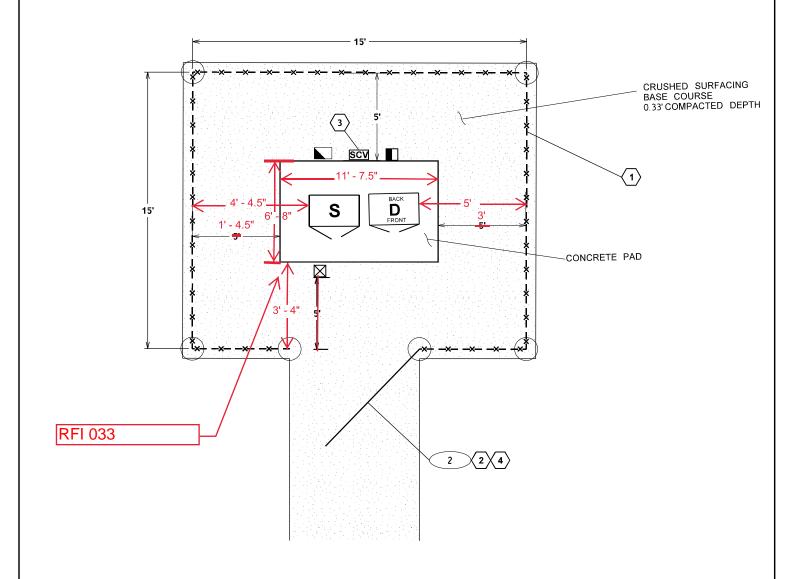
**BOX LOCATION DETAILS** 



#### **COMMUNICATION HUB**

#### **CONSTRUCTION NOTES:**

- INSTALL SECURITY COATED CHAIN LINK FENCE TYPE 3 IN ACCORDANCE WITH STANDARD PLAN L-20.10 AND SPECIAL PROVISIONS
- 2) INSTALL SECURITY DOUBLR 14 FEET CHAIN LINK GATE IN ACCORDANCE WITH STANDARD PLAN L-30.10.
- (3) INSTALL NO TRESPASSING SIGN. SEE DETAIL ON SS3 SHEET.



#### DATA CABINET AT STATION C LINE 132+95

#### **CONSTRUCTION NOTES:**

- 1) INSTALL SECURITY COATED CHAIN LINK FENCE TYPE 3 IN ACCORDANCE WITH STANDARD PLAN L-20.10 AND SPECIAL PROVISIONS
- $\fbox{2}$  INSTALL SECURITY SINGLE 6 FEET CHAIN LINK GATE IN ACCORDANCE WITH STANDARD PLAN L-30.10.
- PULL BOX AND SMALL CABLE VAULT SHALL BE INSTALLED AGAINST CABINET PAD.
- 4 INSTALL NO TRESPASSING SIGN. SEE DETAIL ON SS3 SHEET.

ا≩ا	FILE NAME	c:\users\giangh\pw_wsdot\d02	76509\XL5863_PS_ITD_DS13.dgn						
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5	CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.	7
<u>≷</u>	PROJ. ENGR.	L. MOODY	AD3 - REPLACEMENT SHEET	02/24/2021	HG			XL5863	
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				



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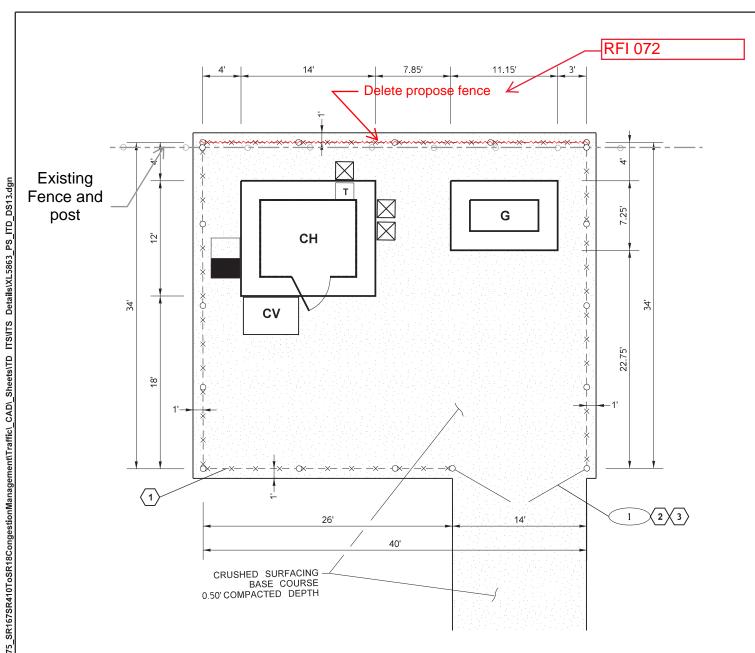


SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

FENCING DETAILS

241 of 357 SHEETS

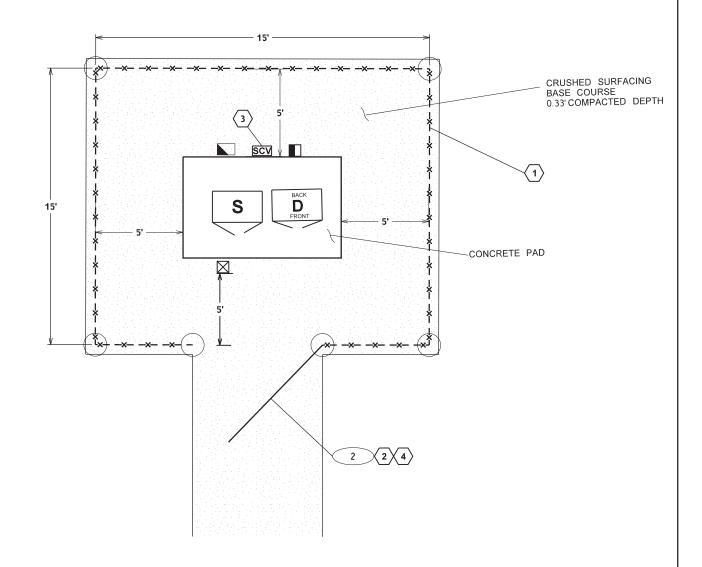
ITD13



## COMMUNICATION HUB

#### **CONSTRUCTION NOTES:**

- INSTALL SECURITY COATED CHAIN LINK FENCE TYPE 3 IN ACCORDANCE WITH STANDARD PLAN L-20.10 AND SPECIAL PROVISIONS
- 2) INSTALL SECURITY DOUBLR 14 FEET CHAIN LINK GATE IN ACCORDANCE WITH STANDARD PLAN L-30.10.
- (3) INSTALL NO TRESPASSING SIGN. SEE DETAIL ON SS3 SHEET.



#### DATA CABINET AT STATION C LINE 132+95

#### **CONSTRUCTION NOTES:**

- 1) INSTALL SECURITY COATED CHAIN LINK FENCE TYPE 3 IN ACCORDANCE WITH STANDARD PLAN L-20.10 AND SPECIAL PROVISIONS
- $\fbox{2}$  INSTALL SECURITY SINGLE 6 FEET CHAIN LINK GATE IN ACCORDANCE WITH STANDARD PLAN L-30.10.
- PULL BOX AND SMALL CABLE VAULT SHALL BE INSTALLED AGAINST CABINET PAD.
- 4 INSTALL NO TRESPASSING SIGN. SEE DETAIL ON SS3 SHEET.

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ઢ	PROJ. ENGR.	L. MOODY	AD3 - REPLACEMENT SHEET	02/24/2021	HG			XL5863	
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				



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Washington State Department of Transportation

SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

FENCING DETAILS

241 OF 357 SHEETS

ITD13

# F/O CABLE LABELING DETAILS

CAUTION						
	FIBER OPT	TIC CABLE				
FIBE	R COUNT:	FIBER TYPE:				
SR/D	IRECTION:	CABLE FOOTAGE:				
EQUI	IPMENT ID:					

# APPROX. 4" X 2" BLACK ON YELLOW

FIBER COUNT - NUMBER OF FIBER IN A CABLE (EXAMPLE: 96 CT = 96 FIBERS)

SR/DIRECTION - STATE ROUTE LOCATION AND DIRECTION (EXAMPLE: SR 167 NB = SR 167 NORTHBOUND)

FIBER TYPE - LONGHAUL OR DISTRIBUTION.

CABLE FOOTAGE - SEQUENTIAL NUMBER FOOTAGE OF CABLE (EXAMPLE: 3085 FT)

EQUIPMENT # - ITS DEVICE IDENTIFICATION FOR CABLE TERMINATION (EXAMPLE: 167-VC-00555)

WSDO F-BER CABLE

APPROX. 3" X 8" BLACK ON WHITE

# FLEXIBLE GUIDEPOST DECAL

CONTRACTOR TO PROVIDE AND INSTALL DECALS ON GUIDEPOSTS

c:\users\glangh\pw\_wsdot\d0276509\XL5863\_PS\_ITD\_DS14.dgn FILE NAME FED.AID PROJ.NO. TIME DATE 1/18/2021 10 WASH PLOTTED BY DESIGNED BY H. GIANG 18C526 ENTERED BY H. GIANG CHECKED BY R. CRUMBLEY LOCATION NO. XL5863 PROJ. ENGR. L. MOODY REVISION DATE BY REGIONAL ADM. J. WYNANDS



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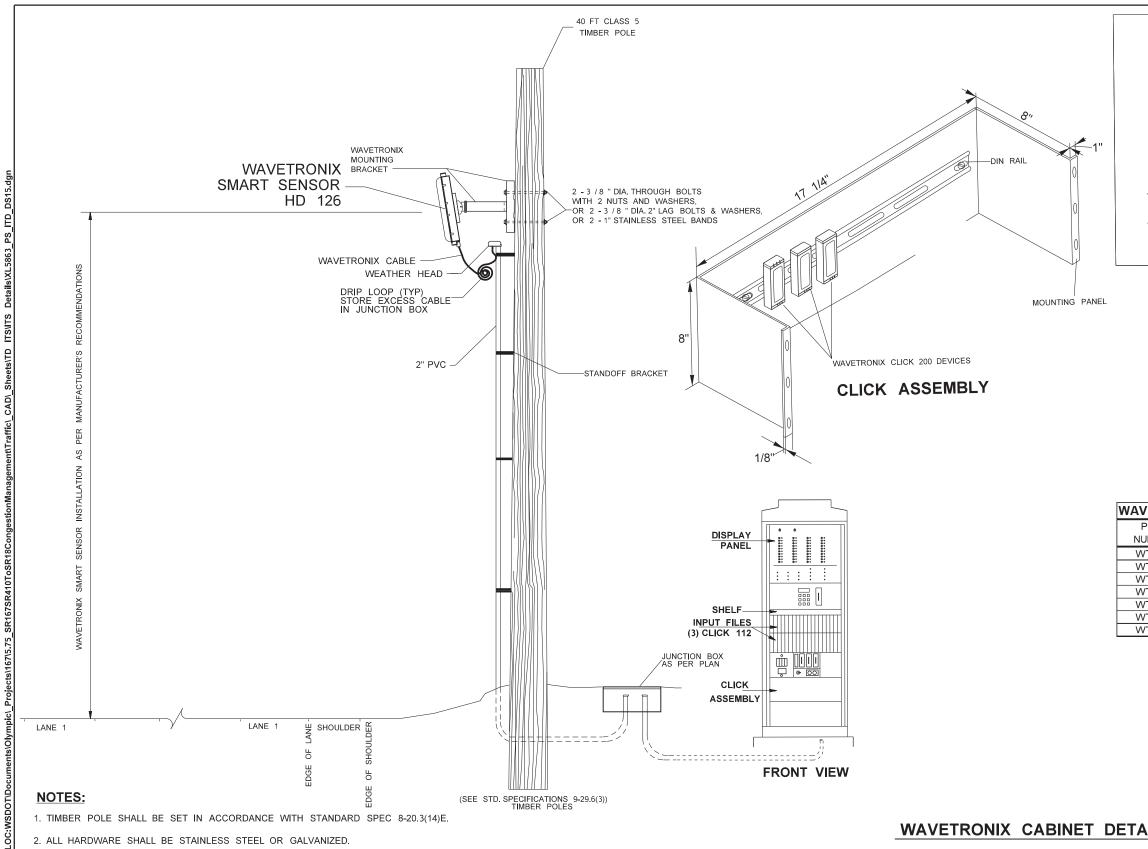


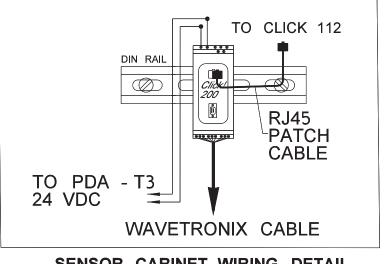
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

FIBER OPTIC CABLE LABELING DETAILS

SHEET 242 OF 357 SHEETS

nts\Olympic\\_Projects\167\5.75\_SR167SR410ToSR18CongestionManagement\Traffic\\_CAD\\_Sheets\TD | ITS\ITS Details\XL5863\_P\$





SENSOR CABINET WIRING DETAIL

WAVETRON							
POLE	LOC	CATION	SHEET NO.				
NUMBER	STATION	OFFSET	SHEET NO.				
WTNX-1	C 300+74	107 RT	ITS11A				
WTNX-2	C 326+91	26 LT	ITS12B				
WTNX-3	C 349+73	65 LT	ITS13A				
WTNX-4	C 374+58	133 LT	ITS14				
WTNX-5	C387+38	67 RT	ITS15				
WTNX-6	C 412+72	87 LT	ITS16				
W/TNX-7	C 432+38	25 I T	ITS16A				

# WAVETRONIX CABINET DETAIL

4. SEE THIS SHEET FOR CABINET EQUIPMENT SCHEDULE.

3. FOR POLE SCHEDULE SEE THIS SHEET.

TIMBER POLE WITH WAVETRONIX SMART SENSOR DETAIL

NOT TO SCALE

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ᆸ	DATE	3/3/2021				10 WAS	<del>.</del>
ž	PLOTTED BY	giangh				IU WAS	7
Ž	DESIGNED BY	H. GIANG				JOB NUMBER 18C526	1
ğ	ENTERED BY	H. GIANG				100326	
₹	FILE NAME TIME DATE PLOTTED BY DESIGNED BY ENTERED BY CHECKED BY	R. CRUMBLEY				CONTRACT NO.	LOCATION NO.
ğ	PROJ. ENGR.	L. MOODY	AD3 - ADDED SHEET	02/24/2021	HG		XL5863
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY		



Digitally signed by Ray Crumbley Date: 2021.03.03 09:55:11 -08'00'

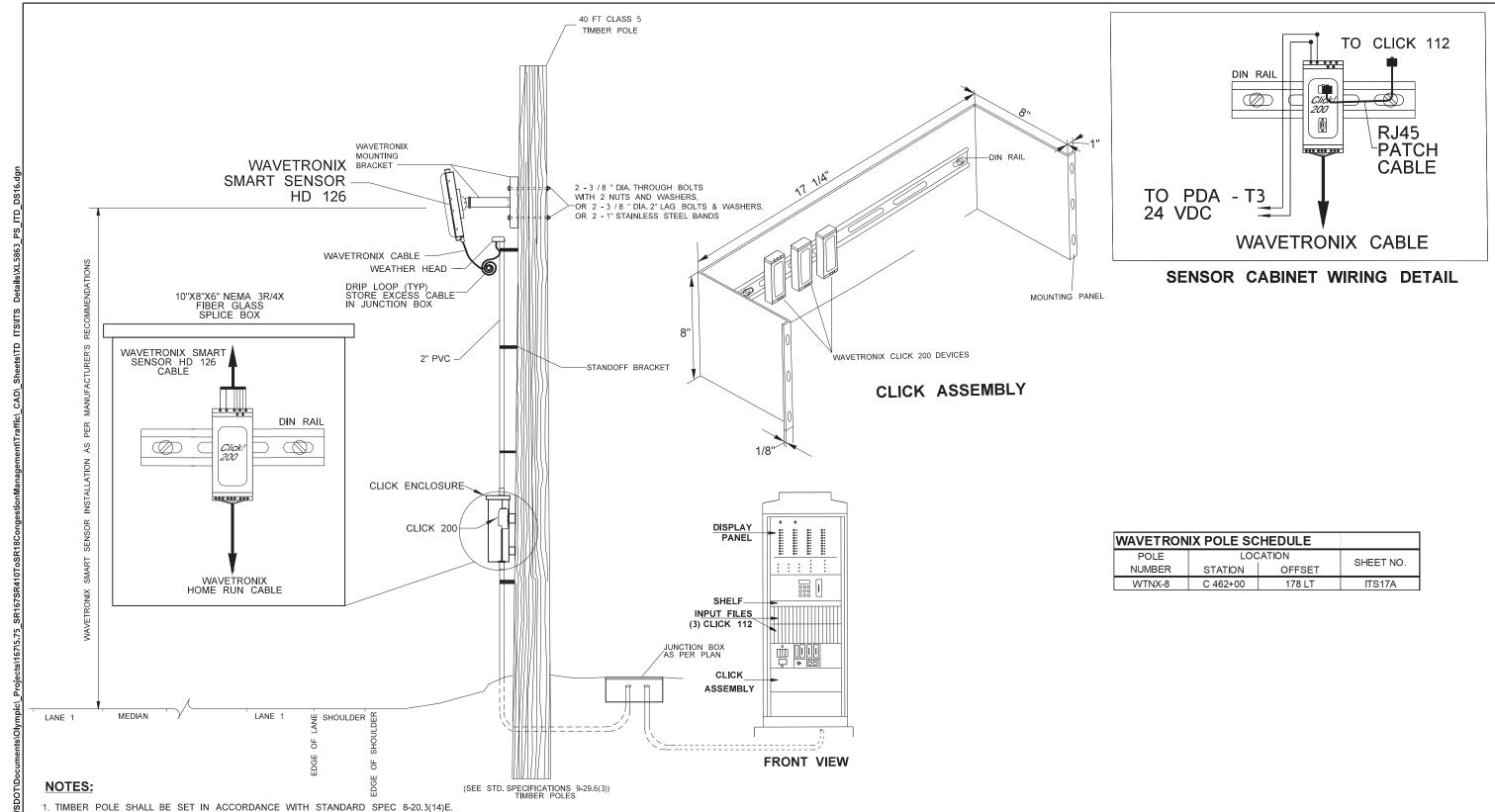
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Washington State Department of Transportation

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

TEMPORARY WAVETRONIX

242A 357 SHEETS

PLAN REF NO ITD14A



WAVETRONIX CABINET DETAIL

3. FOR POLE SCHEDULE SEE THIS SHEET.

4. SEE THIS SHEET FOR CABINET EQUIPMENT SCHEDULE.

2. ALL HARDWARE SHALL BE STAINLESS STEEL OR GALVANIZED.

#### TIMBER POLE WITH WAVETRONIX SMART SENSOR DETAIL

by Ray Crumbley Date: 2021.03.03

**Washington State Department of Transportation** 

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

NOT TO SCALE

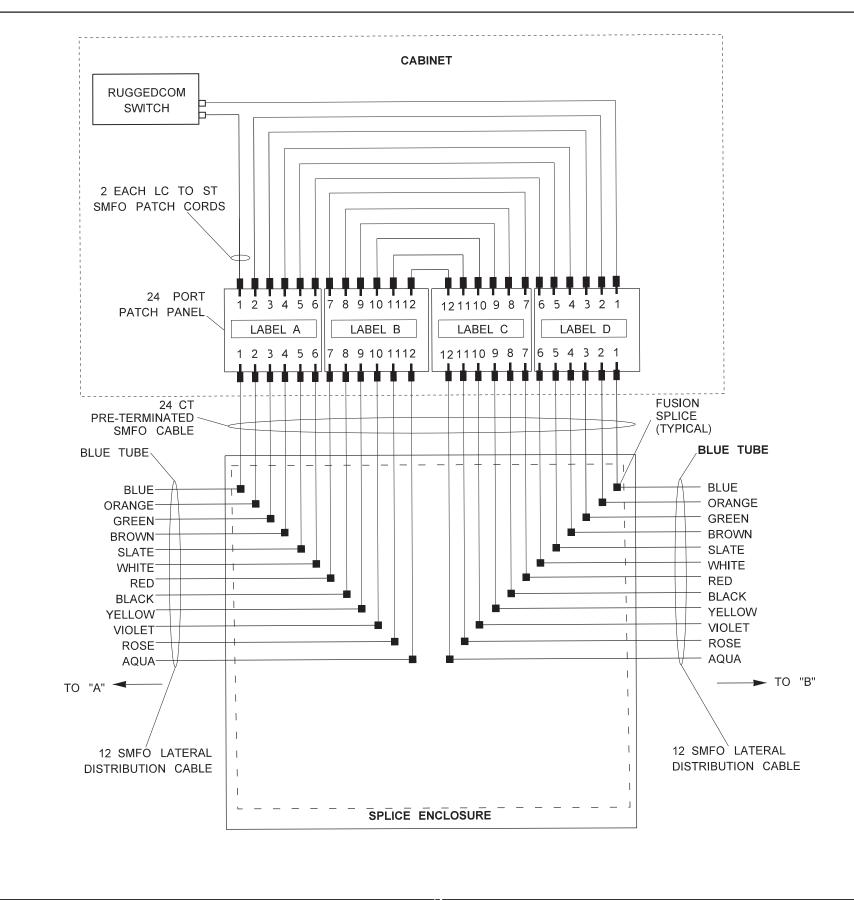
**TEMPORARY WAVETRONIX** 

242B 357 SHEETS

PLAN REF NO ITD14B

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DESIGNED BY	H. GIANG				JOB N	10MBER 5526			
ENTERED BY	H. GIANG				100	,526			
CHECKED BY	R. CRUMBLEY				CONTR	RACT NO.	LOCATION NO.		
PROJ. ENGR.	L. MOODY	AD3 - ADDED SHEET	02/24/2021	HG			XL5863		
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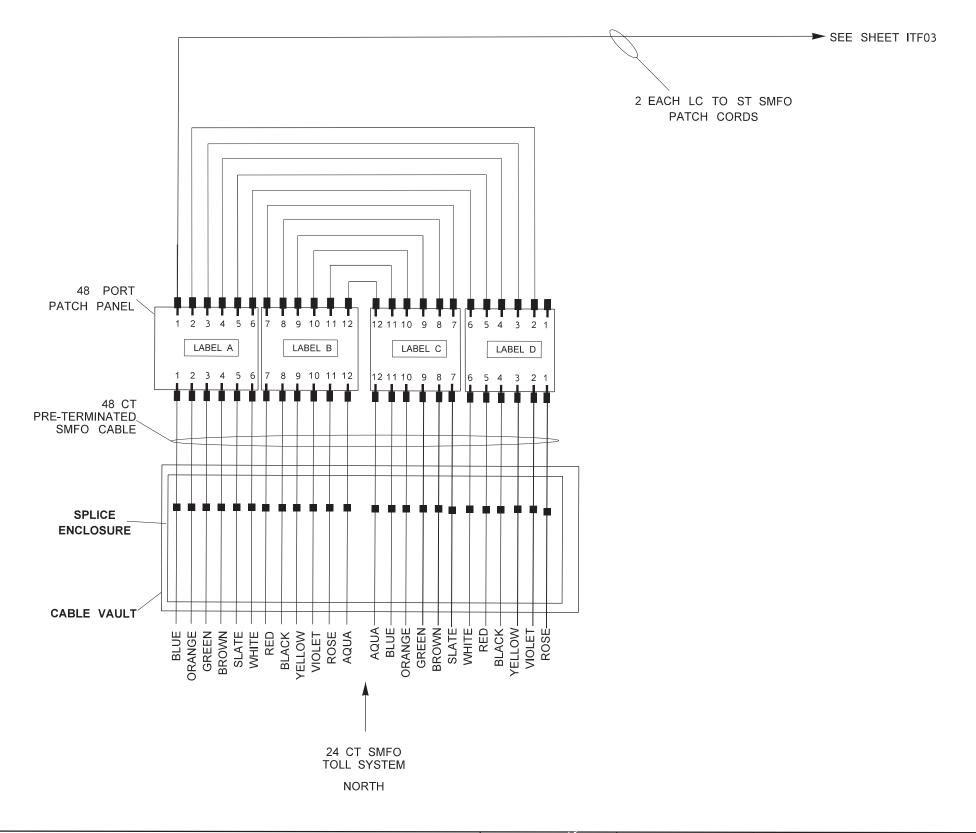
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SR 410 TO SR 18						
CONGESTION MANAGEMENT						

FIBER SPLICE DETAILS

SHEET 243 OF 357 SHEETS

PLAN REF NO



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Washington State Department of Transportation	
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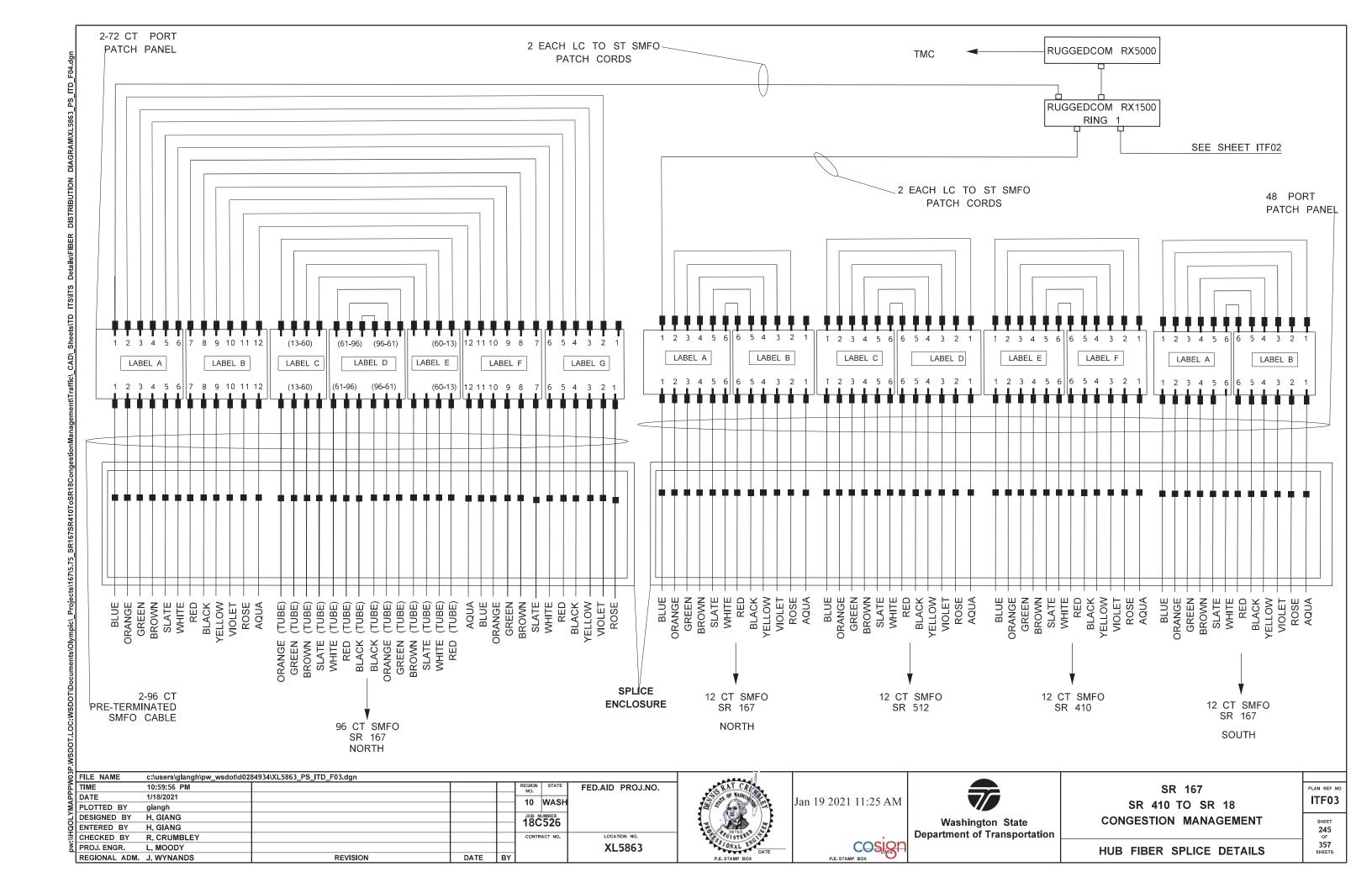
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

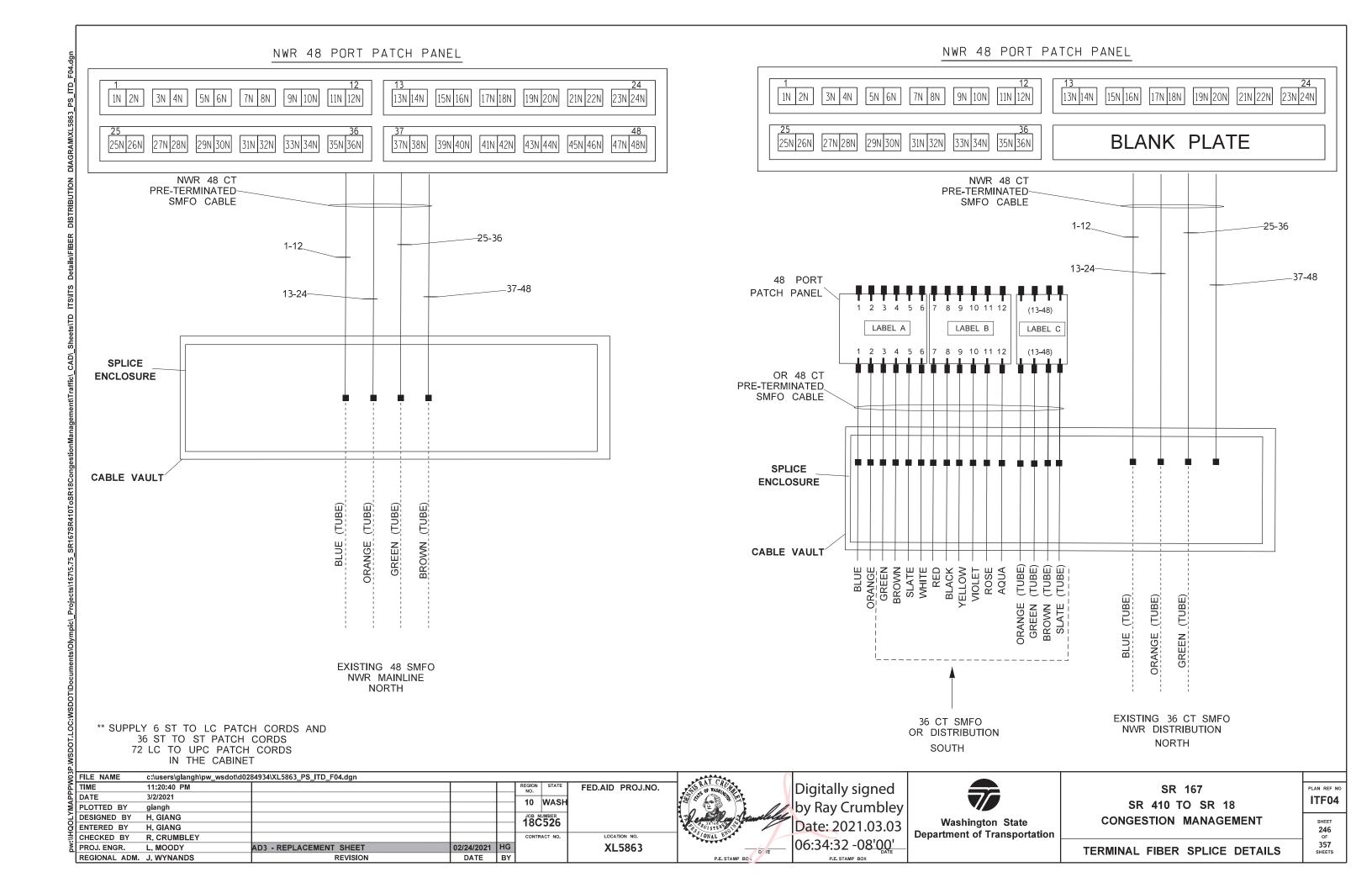
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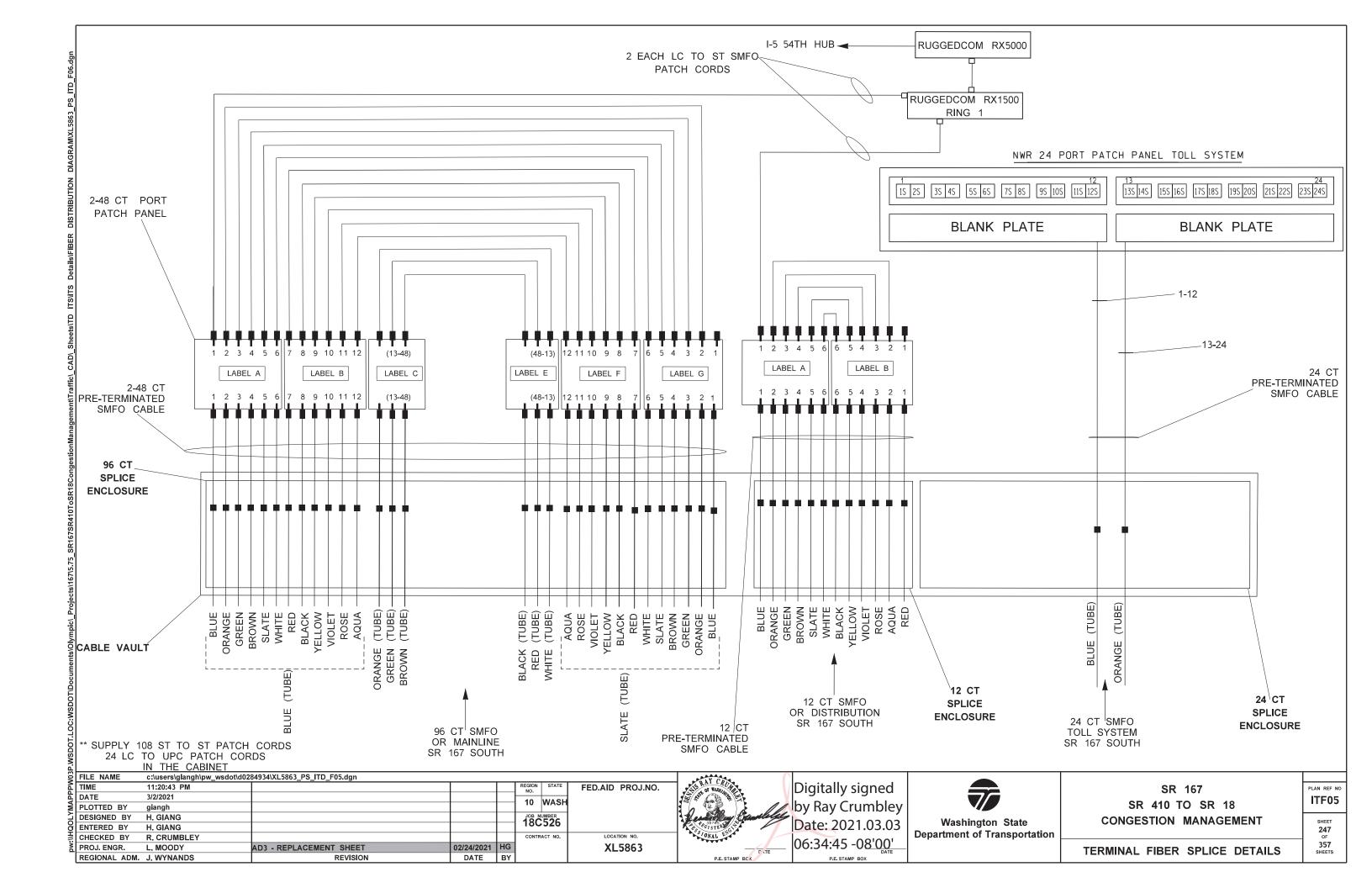
244 OF 357 SHEETS

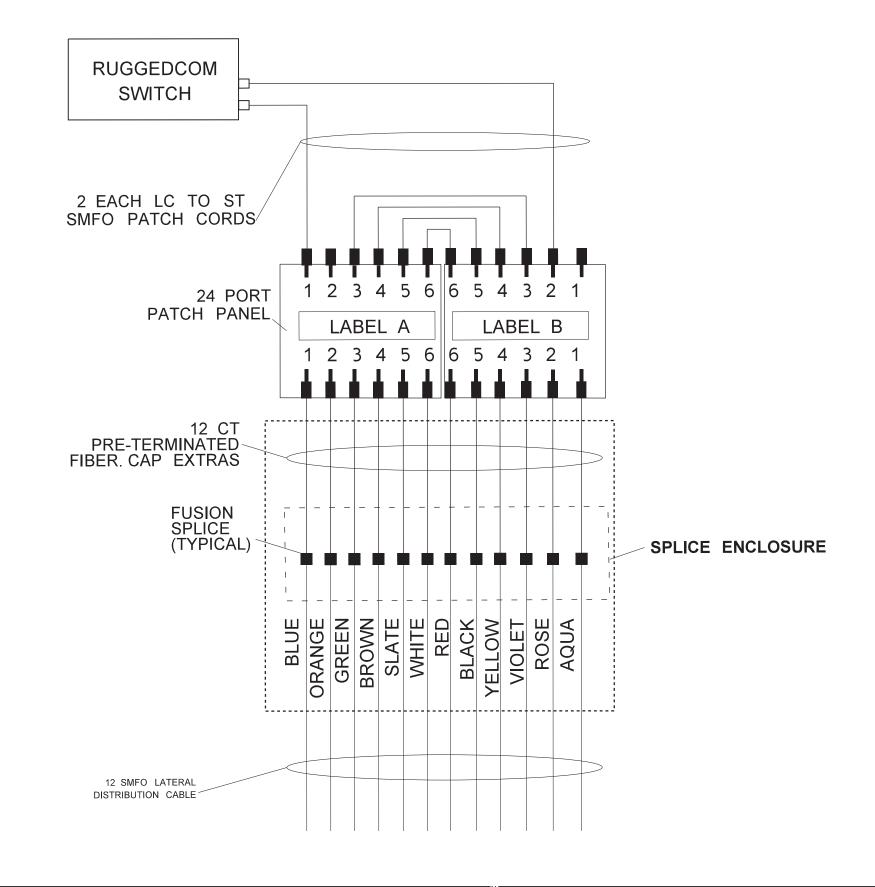
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ITF02









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CHECKED BY	R. CRUMBLEY				CONTR	ACT NO.	LOCATION NO.
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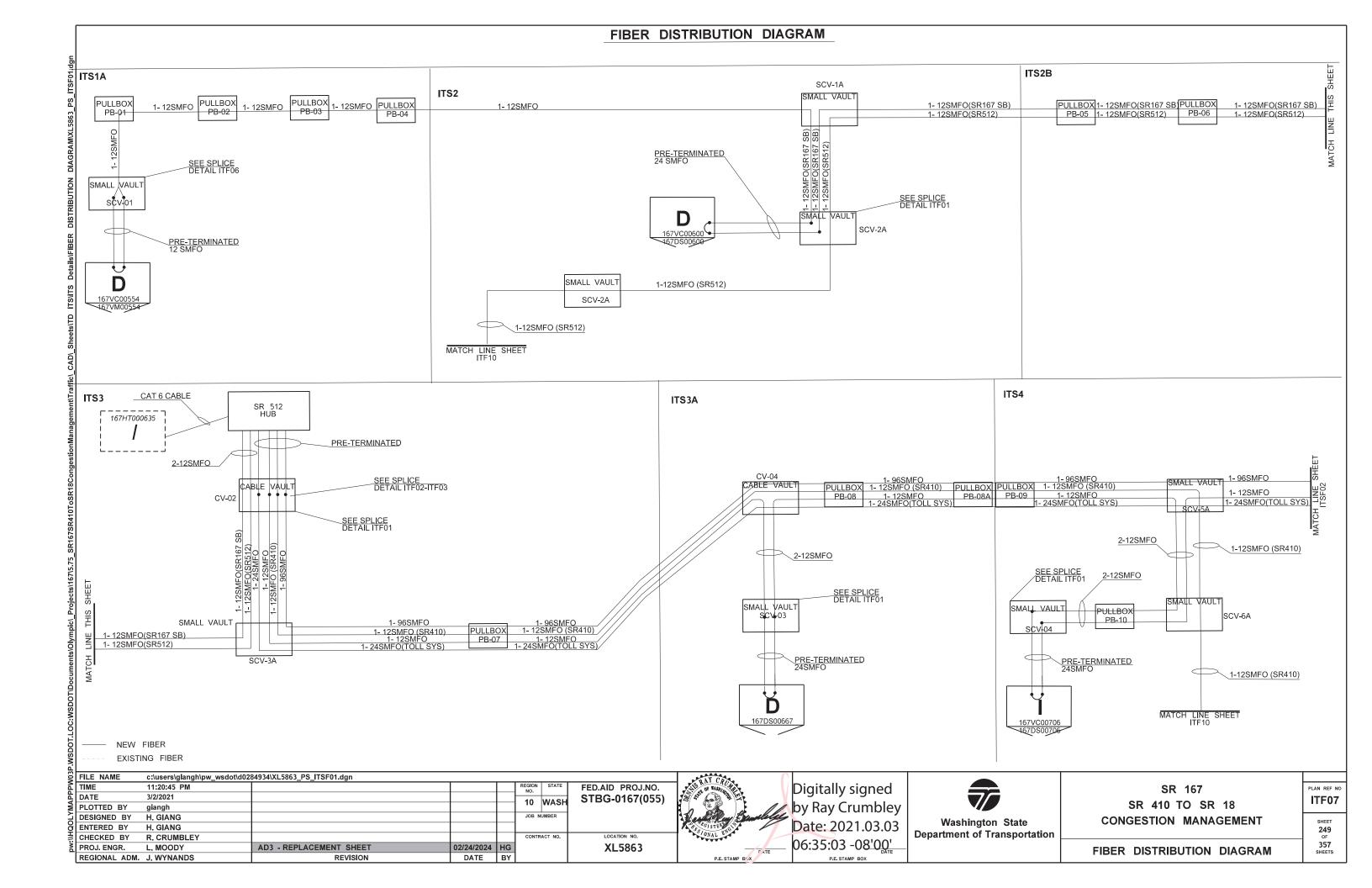
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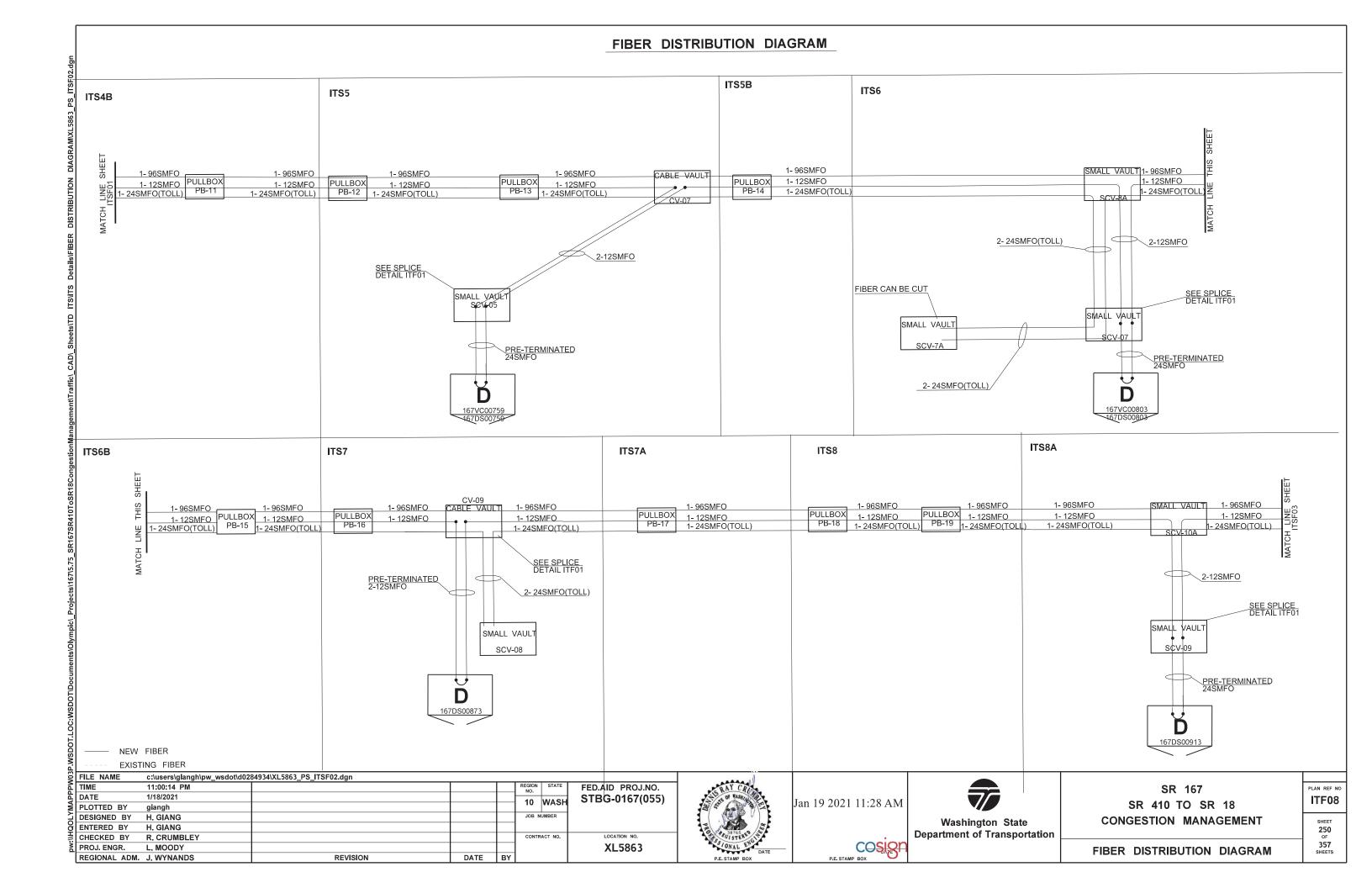
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

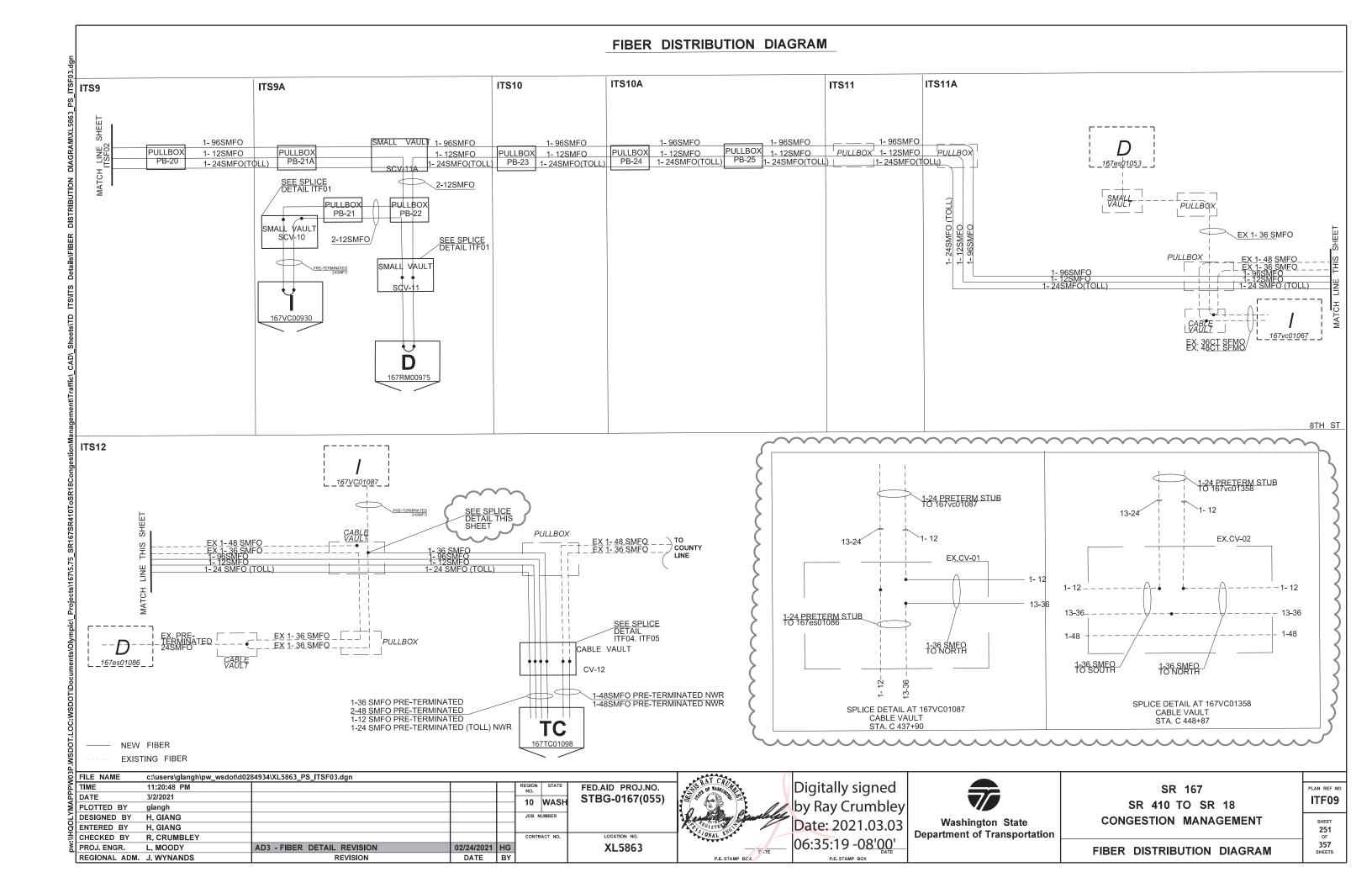
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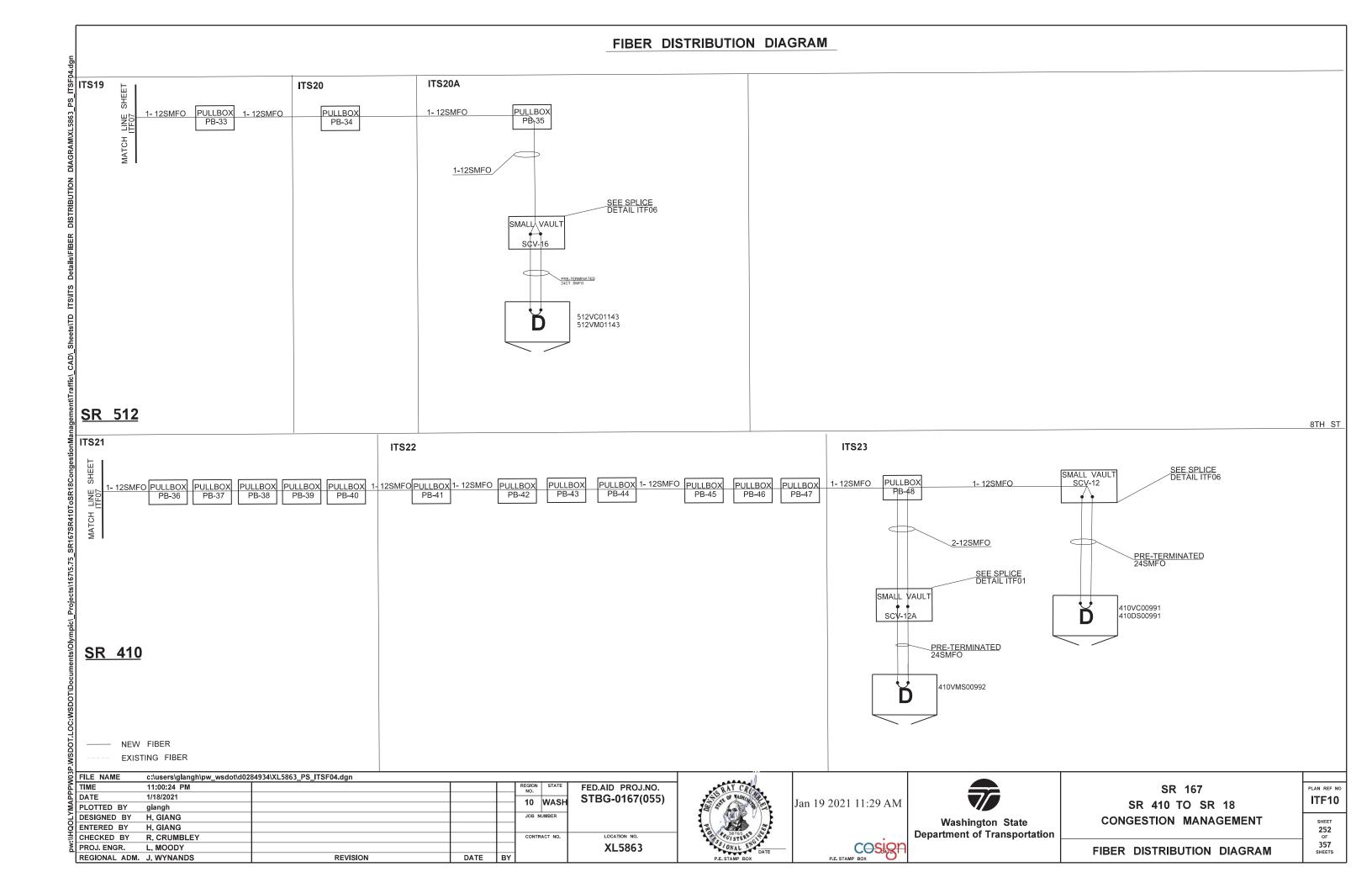
248 of 357 sheets

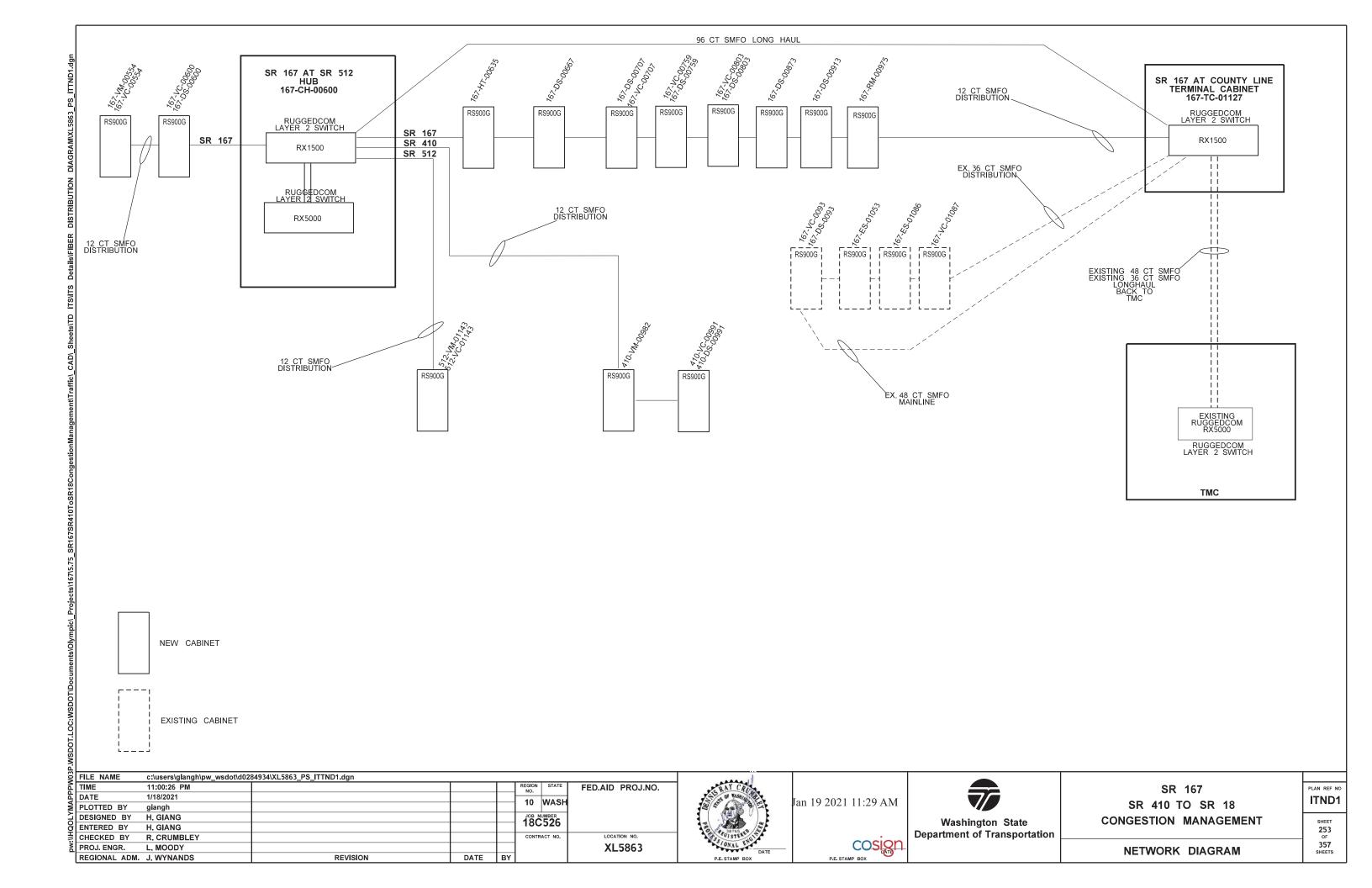
ITF06











SIGN	SIGN	SIGN	STA. LOC.	SIGN	SIZE	SHEETING	LETTER SIZE	POST	POST		POST L	ENGTH		CLEAF	RANCE	
NO.	CODE	DESCRIPTION	(or MP)	X	Υ	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	Н3	H4	V	W	REMARKS
SN3-1	R3-102	RESTRICTED LANE (1/2) MI AHEAD	C 73+50 LT	48"	84"	IV	STANDARD	I I I I I I I I I I I I I I I I I I I	- CILL			110		7'		MOUNT TO VERTICAL SIGN STRUCTURE SUPPORT WITH BAND-ITS, SEE NOTE 2
SN3-R1	R5-601	BICYCLES MUST EXIT	C 76+29 RT	24"	24"											REMOVE SIGN ONLY
SN3-2	R5-601	BICYCLES MUST EXIT	C 76+29 RT	24"	24"	IV	STANDARD	WOOD								INSTALL IN SAME LOCATION OF SIGN SN3-R1
SN3-3	R3-102	RESTRICTED LANE (1/4) MI AHEAD	C 83+50 LT	48"	84"	IV	STANDARD	STEEL	3" SQ.	10'				7'	18'	SEE NOTE 3
SN3-R2	R5-601	BICYCLES MUST EXIT	C 90+65 RT	24"	24"											REMOVE SIGN ONLY
SN3-4	R5-601	BICYCLES MUST EXIT	C 90+65 RT	24"	24"	IV	STANDARD	WOOD								INSTALL IN SAME LOCATION OF SIGN SN3-R2
SN3-5	R3-13	RESTRICTED LANE AHEAD	C 91+00 LT	144"	96"	III OR IV	SEE DETAIL	STEEL	3" SQ.	16'	18'			7'	16'	SEE NOTE 3
SN4-1	E6-2	PULL THRU SIGN	C 94+45 O	192"	156"	**	SEE DETAIL									SEE SHEET SB2
SN4-2	E6-2	PULL THRU SIGN	C 94+45 O	206"	156"	**	SEE DETAIL									SEE SHEET SB2
SN4-R1	E6-2	PULL THRU SIGN	C 98+80 O	168"	144"											REMOVE SIGN ONLY
SN4-R2	E6-2	PULL THRU SIGN	C 98+80 O	156"	156"											REMOVE SIGN ONLY
SN4-3	R3-1402 MOD	RESTRICTED LANE, ARROW DOWN	C 98+80 O	168"	108"	IV	SEE DETAIL									SEE PLAN SHEET FOR ADDITIONAL INSTALLATION REQUIREMENTS
SN5-1	W4-2L	PAVEMENT WIDTH TRANSITION	C 122+17 RT	48"	48"	IV		STEEL	2.5" SQ.	16'				7'	8'	
SN5-2	M1-701	(NORTH 167) STATE ROUTE	C 143+00 RT	36"	48"	IV	STANDARD	STEEL	2.5" SQ.	14'				7'	13'	
SN5-R1	R4-3	SLOWER TRAFFIC KEEP RIGHT	C 143+10 LT	48''	60"			WOOD	4x4							REMOVE SIGN AND POST
SN6-1	R3-1102L	LEFT LANE (HOV ONLY)	C 154+00 LT	54''	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
SN7-1	I10-101	REPORT VIOLATORS	C 176+00 LT	48"	36"	IV	SEE DETAIL	STEEL	2.5" SQ.	13'				7'	13'	
SN8-1	R3-1102L	LEFT LANE (HOV ONLY)	C 207+00 LT	54''	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
SN9-R1	R9-4A	NO HITCHHIKING SYMBOL	C 240+50 RT	24"	24"			WOOD								REMOVE SIGN ONLY
SN9-R2	R9-4A	NO HITCHHIKING SYMBOL	C 240+48 RT	24"	24"			WOOD								REMOVE SIGN ONLY
SN9-R3	R4-3	SLOWER TRAFFIC KEEP RIGHT	C 143+10 LT	48"	60"			WOOD	4x6							REMOVE SIGN AND POST
SN9-1	R5-1004	PROHIBITED	C 240+50 RT	24"	24"	IV	STANDARD	WOOD								INSTALL BELOW "FREEWAY ENTRANCE" SIGN
SN9-2	R5-1004	PROHIBITED	C 240+48 RT	24"	24"	IV	STANDARD	STEEL								INSTALL BELOW "FREEWAY ENTRANCE" SIGN

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FOR CODE REFERENCES AND STANDARD DETAILS SEE WASHINGTON STATE SIGN FABRICATION MANUAL UNLESS OTHERWISE NOTED. ALL SINGLE POST SIGNS OVER 48" SHALL HAVE BRACING (SEE **STANDARD PLAN G-50.10**)

USE STEEL SIGN SUPPORT TYPE ST-4 (SEE STANDARD PLAN G-24.50), UNLESS OTHERWISE NOTED.

USE STEEL SIGN SUPPORT TYPE SB-1A FOR ALL SLIP BASES (SEE STANDARD PLAN G-24.40), UNLESS OTHERWISE NOTED.

ALL W BEAM STEEL POSTS SHALL BE ASTM A36 STEEL.

WHEN SIGN IS PLACED BEHIND CURB THE V-DIMENSION SHALL BE MEASURED FROM THE TOP OF THE CURB AND THE W-DIMENSION SHALL BE MEASURED FROM THE FACE OF CURB CLOSEST TO THE DIRECTION OF TRAFFIC THE SIGN IS FACING. FOR TYPE ST-4 AND SB SIGN SUPPORT FOUNDATIONS, THE CONTRACTOR MAY USE COMMERCIAL CONCRETE.

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- 3: USE 7 GA. 3" SQUARE STEEL POST WITH SB-1A AND 10" TRIANGULAR SLIP BASE; INSTALL IN ACCORDANCE WITH **STANDARD PLAN G-24.40**.
- 4: REMOVE SINGLE POST FOUNDATIONS IN THEIR ENTIRETY. W-BEAM FOUNDATION SHALL BE REMOVED 2 FEET BELOW SUBGRADE AND FILL AND COMPACT VOIDS IN ACCORDANCE WITH STANDARD SPECIFICATION 2-09.3(1)E.
- 5: SEE ITS PLANS FOR DYNAMIC DISPLAYS DETAILS.
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nents\ 167 HOT LAN	ES\XL 5863 SR167 ETL PI	oject\Sign Spec	XL5863_S	REGION NO.	SIAIE	FED. AID PROJ. NO.	No. of the last of			
							S RAI CRUMS	Washington State Department of Transportation	SR 167	SS 1
J. VARADY				10	WASH		ELECT DE CONTRACTOR OF THE PERSON OF THE PER		SR 410 TO SR 18	
J. VARADY								Digitally signed by Ray	CONGESTION MANAGEMENT	SHEET
R. CRUMBLEY				JOB N	IUMBER		To a series of	Crumblev		254
L. MOODY				180	C526		Value Complete			OF
J. WYNANDS	AD3 - SIGN REVISIONS	02/24/21	JV	CONTR	RACT NO.		ONALA		SIGN SPECIFICATIONS	357
	REVISION	DATE	BY					-08.00.		SHEETS
	J. VARADY J. VARADY R. CRUMBLEY L. MOODY	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS 02/24/21	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS 02/24/21 JV	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS 02/24/21 JV CONTR	J. VARADY	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WASH JOB NUMBER 18C526 J. WYNANDS AD3 - SIGN REVISIONS 02/24/21 JV CONTRACT NO.	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS D2/24/21 JV CONTRACT NO.	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS Digitally signed by Ray Crumbley Digitally signed by Ray Crumbley Date: 2021.03.02 13:15:25	J. VARADY J. VARADY R. CRUMBLEY L. MOODY J. WYNANDS AD3 - SIGN REVISIONS Digitally signed by Ray Congestion Management SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT Crumbley Date: 2021.03.02 13:15:25 SIGN SPECIFICATIONS

L																	
	SIGN	SIGN	SIGN	STA. LOC.	SIGN	SIZE	SHEETING	LETTER SIZE	POST	POST		POST L	ENGTH		CLEAF	RANCE	
	NO.	CODE	DESCRIPTION	(or MP)	Х	Υ	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	H3	H4	V	W	REMARKS
Γ	SN10-1	R3-1102L	LEFT LANE (HOV ONLY)	C 261+00 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
	SN10-2	R3-1402 MOD	RESTRICTED LANE, ARROW DOWN	C 273+00 O	192"	156"	IV	SEE DETAIL									SEE SHEET SB3
	SN11-1	R5-1004	PROHIBITED	C 295+52 RT	24"	24"	IV	STANDARD									INSTALL BELOW "FREEWAY ENTRANCE" SIGN
	SN11-2	E12-201	FREEWAY ENTRANCE	C 295+33 RT	36"	24"	III OR IV	STANDARD	STEEL	2.5" SQ.	10'				7'	8'	
	SN11-3	R5-1004	PROHIBITED	C 295+33 RT	24"	24"	IV	STANDARD									INSTALL BELOW SIGN SN11-2
	SN11-R1	R9-4A	NO HITCHHIKING SYMBOL	C 295+52 RT	24"	24"											REMOVE SIGN ONLY
	SN12-1	R3-1102L	LEFT LANE (HOV ONLY)	C 316+05 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
	SN14-L1	E1-1	ADVANCED GUIDE SIGN	C 364+50 RT	108"	96"			STEEL	W8x21	21'	23'			7'	19'	RELOCATE SIGN TO NEW POST, SEE NOTE 1 & 4
_,	SN13-1	R3-1402 MOD	RESTRICTED LANE, ARROW DOWN	C 342+00 O	192"	156"	IV	SEE DETAIL									SEE SHEET SB1
	SN14-L2	D10-2	(12) MILE	C 365+50 RT	12"	36"			STEEL	2.5" SQ.	10'				4'	14'	RELOCATE SIGN TO NEW POST
	SN14-1	R3-1102L	LEFT LANE (HOV ONLY)	C 371+00 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
	SN14-2	R5-1004	PROHIBITED	C 381+34 RT	24"	24"	IV	STANDARD									INSTALL BELOW "FREEWAY ENTRANCE" SIGN
	SN14-3	R5-1004	PROHIBITED	C 381+52 RT	24"	24"	IV	STANDARD									INSTALL BELOW "FREEWAY ENTRANCE" SIGN
	SN14-R1	R5-1001	PEDESTRIANS, HITCHHIKERS, PROHIBITED	C 381+34 RT	24"	24"											REMOVE SIGN ONLY
	SN14-R2	R5-1001	PEDESTRIANS, HITCHHIKERS, PROHIBITED	C 381+52 RT	24"	24"											REMOVE SIGN ONLY
$\setminus$	SN15-L2	LG-M3A	FOOD EXIT XXX, VERTICAL PANEL (FREEWAY)	C 383+50 RT	144"	156"			STEEL	W8X21	28'	30'			7'	18'	RELOCATE SIGN TO NEW POST, SEE NOTE 1 & 4
	SN15-L1	E1-1	ADVANCE GUIDE SIGN	C 406+44 RT	126"	56''	III OR IV	STANDARD	STEEL	W8x21	21'	23'			14'	3'	RELOCATE SIGN TO NEW POST, SEE NOTE 1, 4 & 6
	SN15-L3	W4-1R	MERGING FROM (RIGHT)	C 387+70 RT	48"	48"			STEEL	3" SQ.	17'				7'	15'	RELOCATE SIGN TO NEW POST, SEE NOTE 3 & 4
_, [	SN16-1	R3-1402 MOD	RESTRICTED LANE, ARROW DOWN	C 410+00 O	192"	156"	IV	SEE DETAIL									SEE SHEET SB4
	SN16-L1	E1-1	ADVANCE GUIDE SIGN	C 413+64 RT	168"	216"	III OR IV	STANDARD	STEEL	W12x30	33'	37'			14'	3'	RELOCATE SIGN TO NEW POST, SEE NOTE 1, 4 & 6
	SN16-L2	D10-2	(13) MILE	C 418+59 RT	12"	36"	III OR IV	STANDARD	STEEL	2.5" SQ.	10'				4'	18'	RELOCATE SIGN TO NEW POST
	SN16-L3	E3-101	DOUBLE EXIT OR NEXT RIGHT SECOND LEFT	C 420+64 RT	156"	168"	III OR IV	STANDARD	STEEL	W10x26	31'	34'			16'	3'	RELOCATE SIGN TO NEW POST, SEE NOTE 1, 4 & 6
	SN16-L4	15-6 SP	TRANSIT SYMBOL	C 413+64 RT	24"	24"											RELOCATE TO LEFT POST JUST BELOW THE HINGE POINT
	SN17-1	R3-1102L	LEFT LANE (HOV ONLY)	C 445+03 LT	54''	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
	SN18-1	R3-1102L	LEFT LANE (HOV ONLY)	C 479+03 LT	54''	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
	SN22-1	R5-1004	PROHIBITED	R2 646+43 RT	24"	24"	IV	STANDARD	WOOD								INSTALL BELOW "FREEWAY ENTRANCE" SIGN

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3/2/21 1:11 PM								OF WASHING	Washington State Department of Transportation	SR 167	SS 2
DESIGNED BY	J. VARADY				10	WASH		E STATE OF THE PARTY OF THE PAR		SR 410 TO SR 18	
ENTERED BY	J. VARADY				1				Digitally signed by Ray	CONGESTION MANAGEMENT	SHEET
CHECKED BY	R. CRUMBLEY	1 CO #06 - ELLINGSON VIC SIGN RELOCATION	09/06/2022	AD	JOB N	UMBER	]	10 4 38 TO 5 10 EM	Crumblev		255
PROJ. ENGR.	L. MOODY	AD3 - SIGN REVISIONS	02/24/21	JV	18	C526		Here Charles	Date: 2021.03.02		OF
REGION ADM.	J. WYNANDS	AD2 - SIGN RELOCATION REVISIONS	02/11/21	JV	CONTR	RACT NO.		- WAL		SIGN SPECIFICATIONS	357
		REVISION	DATE	BY				0	13:14:41 -08'00'		SHEETS

SIGN	SIGN	SIGN	STA. LOC.	SIGN	SIZE	SHEETING	LETTER SIZE	POST	POST		POST L	ENGTH		CLEAF	RANCE	
NO.	CODE	DESCRIPTION	(or MP)	X	Υ	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	НЗ	H4	V	W	REMARKS
SN10-1	R3-1102L	LEFT LANE (HOV ONLY)	C 261+00 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'	112	110	11.7	7'	13'	SEE NOTE 3
SN10-2	R3-1402 MOD	RESTRICTED LANE. ARROW DOWN	C 273+00 O	192"	156"	IV	SEE DETAIL	0.222	0 00.					,		SEE SHEET SB3
01110 2	110 1102 11103	TRESTRICTED EXITE, FIRST CONTROL OF THE CONTROL OF	3 21 3 3 3	102	100		022 32 17 (12									
SN11-1	R5-1004	PROHIBITED	C 295+52 RT	24"	24"	IV	STANDARD									INSTALL BELOW "FREEWAY ENTRANCE" SIGN
SN11-2	E12-201	FREEWAY ENTRANCE	C 295+33 RT	36"	24"	III OR IV	STANDARD	STEEL	2.5" SQ.	10'				7'	8'	
SN11-3	R5-1004	PROHIBITED	C 295+33 RT	24"	24"	IV	STANDARD									INSTALL BELOW SIGN SN11-2
SN11-R1	R9-4A	NO HITCHHIKING SYMBOL	C 295+52 RT	24"	24"											REMOVE SIGN ONLY
SN12-1	R3-1102L	LEFT LANE (HOV ONLY)	C 316+05 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	16'				7'	13'	SEE NOTE 3
/SN13-1	R3-1402 MOD	RESTRICTED LANE, ARROW DOWN	C 342+00 O	192"	156"	IV	SEE DETAIL								SEE SHEET SB1	
Y																
<del>3N14-1</del>	R3-1102L	LEFT LANE (HOV ONLY)	C 371+00 LT	54"	72"	III OR IV	STANDARD	STEEL	3" 3Q.	SQ. 10'				7.	13'	ISEE NOTE 3
SN14-2	R5-1004	PROHIBITED	C 381+34 RT	24"	24"	IV	STANDARD		·							INSTALL BELOW "FREEWAY ENTRANCE" SIGN
SN14-3	R5-1004	PROHIBITED	C 381+52 RT	24"	24"	IV	STANDARD									INSTALL BELOW "FREEWAY ENTRANCE" SIGN
SN14-R1	R5-1001	PEDESTRIANS, HITCHHIKERS, PROHIBITED	C 381+34 RT	24"	24"											REMOVE SIGN ONLY
SN14-R2	R5-1001	PEDESTRIANS, HITCHHIKERS, PROHIBITED	C 381+52 RT	24"	24"											REMOVE SIGN ONLY
SN15-L1	E1-1	ADVANCE GUIDE SIGN	C 406+44 RT	126"	56"	III OR IV	STANDARD	STEEL	W8x21	21'	23'			14'	3'	RELOCATE SIGN TO NEW POST, SEE NOTE 1, 4 & 6
SN16-1	R3-1402 MOD	RESTRICTED LANE, ARROW DOWN	C 410+00 O	192"	156"	IV	SEE DETAIL									SEE SHEET SB4
SN16-L1	E1-1	ADVANCE GUIDE SIGN	C 413+64 RT	168"	216"	III OR IV	STANDARD	STEEL	W12x30	33'	37'			14'	3'	RELOCATE SIGN TO NEW POST, SEE NOTE 1, 4 & 6
SN16-L2	D10-2	(13) MILE	C 418+59 RT	12"	36"	III OR IV	STANDARD	STEEL	2.5" SQ.	10'				4'	18'	RELOCATE SIGN TO NEW POST
SN16-L3	E3-101	DOUBLE EXIT OR NEXT RIGHT SECOND LEFT	C 420+64 RT	156"	168"	III OR IV	STANDARD	STEEL	W10x26	31'	34'			16'	3'	RELOCATE SIGN TO NEW POST, SEE NOTE 1, 4 & 6
SN16-L4	15-6 SP	TRANSIT SYMBOL	C 413+64 RT	24"	24"											RELOCATE TO LEFT POST JUST BELOW THE HINGE POINT
SN17-1	R3-1102L	LEFT LANE (HOV ONLY)	C 445+03 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	. 16'			7'	13'	SEE NOTE 3	
		·														
SN18-1	R3-1102L	LEFT LANE (HOV ONLY)	C 479+03 LT	54"	72"	III OR IV	STANDARD	STEEL	3" SQ.	Q. 16'			7'	13'	SEE NOTE 3	
SN22-1	R5-1004	PROHIBITED	R2 646+43 RT	24"	24"	IV	STANDARD	WOOD								INSTALL BELOW "FREEWAY ENTRANCE" SIGN

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- 3: USE 7 GA. 3" SQUARE STEEL POST WITH SB-1A AND 10" TRIANGULAR SLIP BASE; INSTALL IN ACCORDANCE WITH STANDARD PLAN G-24.40.
- 4: REMOVE SINGLE POST FOUNDATIONS IN THEIR ENTIRETY. W-BEAM FOUNDATION SHALL BE REMOVED 2 FEET BELOW SUBGRADE AND FILL AND COMPACT VOIDS IN ACCORDANCE WITH STANDARD SPECIFICATION 2-09.3(1)E.
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C:\Users\VaradyJ\Documen	ts\ 167 HOT LAN	NES\XL 5863 SR167 ETL Proje	ect\Sign Spe	c\[XL5863_S	REGION NO.	STATE	FED. AID PROJ. NO.	N CO				
3/2/21 1:11 PM								OF WASHING	Washington State Department of Transportation	SR 167	SS 2	
DESIGNED BY	J. VARADY				10	WASH		The state of the s		SR 410 TO SR 18		
ENTERED BY	J. VARADY								Digitally signed by Ray	CONGESTION MANAGEMENT	SHEET	7
CHECKED BY	R. CRUMBLEY				JOB	NUMBER		10 4 38 165 D 5 10	Crumblev		255	
PROJ. ENGR.	L. MOODY	AD3 - SIGN REVISIONS	02/24/21	JV	18	3C526		Lesin Kent Charles	Date: 2021.03.02		OF	
REGION ADM.	J. WYNANDS	AD2 - SIGN RELOCATION REVISIONS	02/11/21	JV	CONT	RACT NO.		ONAL		SIGN SPECIFICATIONS	357	
		REVISION	DATE	BY					13:14:41 -08'00'		SHEETS	į

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SIGN	SIGN	SIGN	STA. LOC.	SIGN	I SIZE	SHEETING	LETTER SIZE	POST	POST		POST L	ENGTH		CLEAF	RANCE	
NO.	CODE	DESCRIPTION	(or MP)	Х	Υ	TYPE	OR CODE	MATERIAL	SIZE	H1	H2	НЗ	H4	V	W	REMARKS
SN22-R1	R5-1001	PEDESTRIANS, HITCHHIKERS, PROHIBITED	R2 646+43 RT	24"	24"			WOOD								REMOVE SIGN ONLY
SN22-2	R5-601	BICYCLES MUST EXIT	R2 642+80 RT	24"	24"	IV	STANDARD									MOUNT ON EXISTING W8X21 SIGN POST EXISTING SIGN
SN22-3	R5-601	BICYCLES MUST EXIT	MP 9.48 RT	24"	24"	IV	STANDARD	STEEL	2.5" SQ.	10'				5'	12'	SEE PLAN SHEET FOR LOCATION
ITS9A-1	W3-501	RAMP METERING AHEAD WHEN FLASHING	C 240+28 RT	48"	48''	IV	STANDARD	SIG STD								SEE ITS SHEET FOR MORE INFORMATION
ITS9A-2	W3-501	RAMP METERING AHEAD WHEN FLASHING	C 239+94 RT	48"	48"	IV	STANDARD	SIG STD								SEE ITS SHEET FOR MORE INFORMATION
ITS10-1	R10-601L	STOP HERE ON RED 1 CAR PER GREEN	R3 812+51 RT	24"	42"	IV	STANDARD	SIG STD								SEE ITS SHEET FOR MORE INFORMATION
.=	540.0045		0.004.04.07		4.011		07445455	010.075								
ITS12-1	R10-601R	STOP HERE ON RED 1 CAR PER GREEN	C 304+81 RT	24"	42"	IV	STANDARD	SIG STD								SEE ITS SHEET FOR MORE INFORMATION
ITC45 4	D40 C04D	0700 UEDE ON DED 4 040 DED 00550	C 200+00 DT	24"	42"	IV	CTANDADD	SIG STD								CEE ITC CHEET FOR MORE INFORMATION
ITS15-1	R10-601R	STOP HERE ON RED 1 CAR PER GREEN	C 388+90 RT	24	42	IV	STANDARD	SIGSTD								SEE ITS SHEET FOR MORE INFORMATION
ITD09-1	R17-2	NO TRESPASSING	C 49+00 RT	24"	18"	III OR IV	STANDARD	GATE						5'		SEE ITS SHEET FOR MORE INFORMATION
ITD09-2	R17-2	NO TRESPASSING	C 132+95 LT	24"	18"	III OR IV	STANDARD	GATE						5'		SEE ITS SHEET FOR MORE INFORMATION
112002	1(1) 2	THE TREE RESILE	0 102 100 21		10	III OI CIV	017111071110	0,112								OLE TO STILL TOK MORE IN OKWATION
					1						1					1

#### **GENERAL NOTES:**

SIGN NUMBERS ABOVE ARE LISTED AS "SHEET NUMBER - SIGN NUMBER (ON THAT SHEET)".

FOR CODE REFERENCES AND STANDARD DETAILS SEE WASHINGTON STATE SIGN FABRICATION MANUAL UNLESS OTHERWISE NOTED. ALL SINGLE POST SIGNS OVER 48" SHALL HAVE BRACING (SEE **STANDARD PLAN G-50.10**)

USE STEEL SIGN SUPPORT TYPE ST-4 (SEE STANDARD PLAN G-24.50), UNLESS OTHERWISE NOTED.

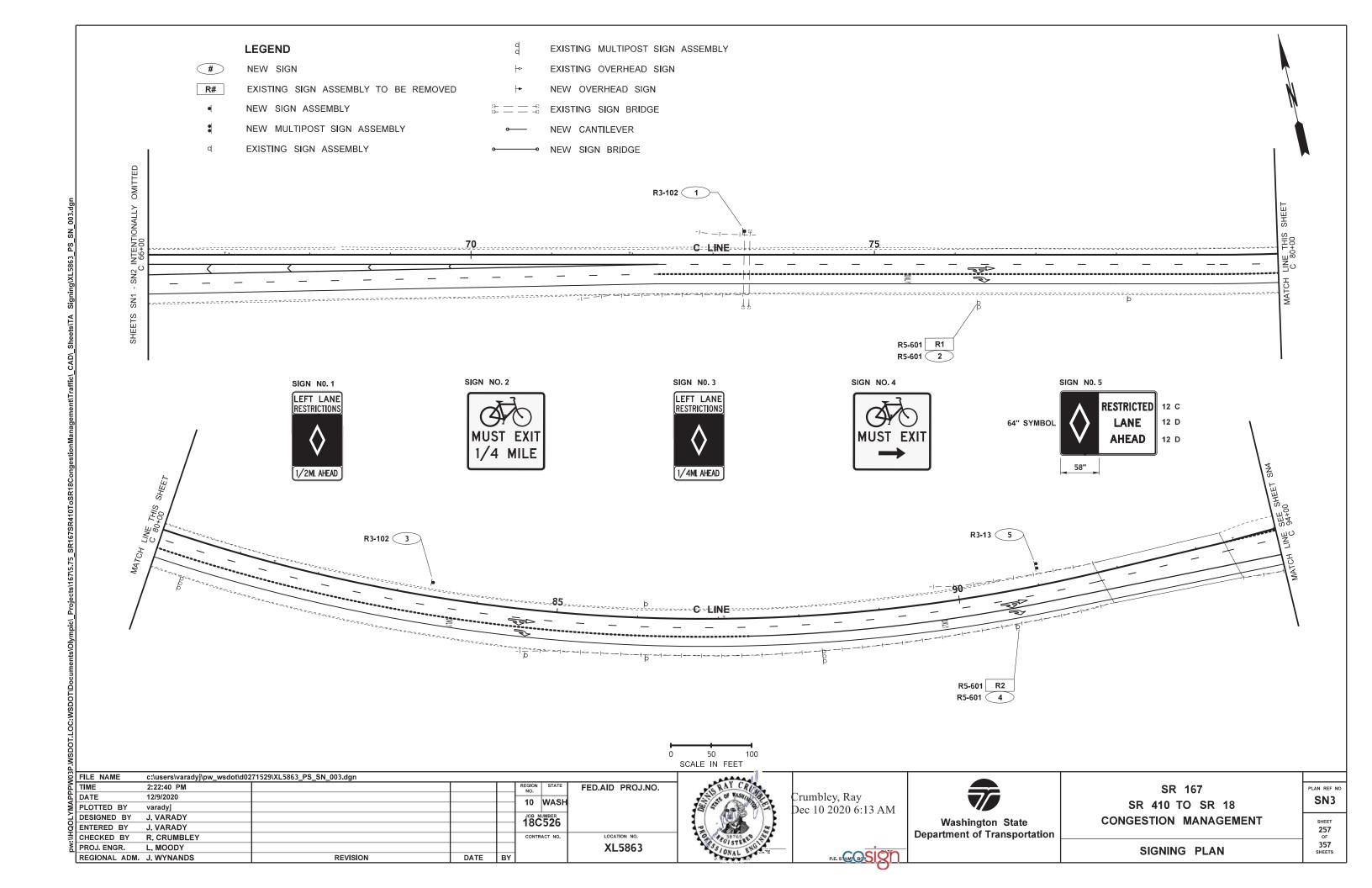
ALL W BEAM STEEL POSTS SHALL BE ASTM A36 STEEL.

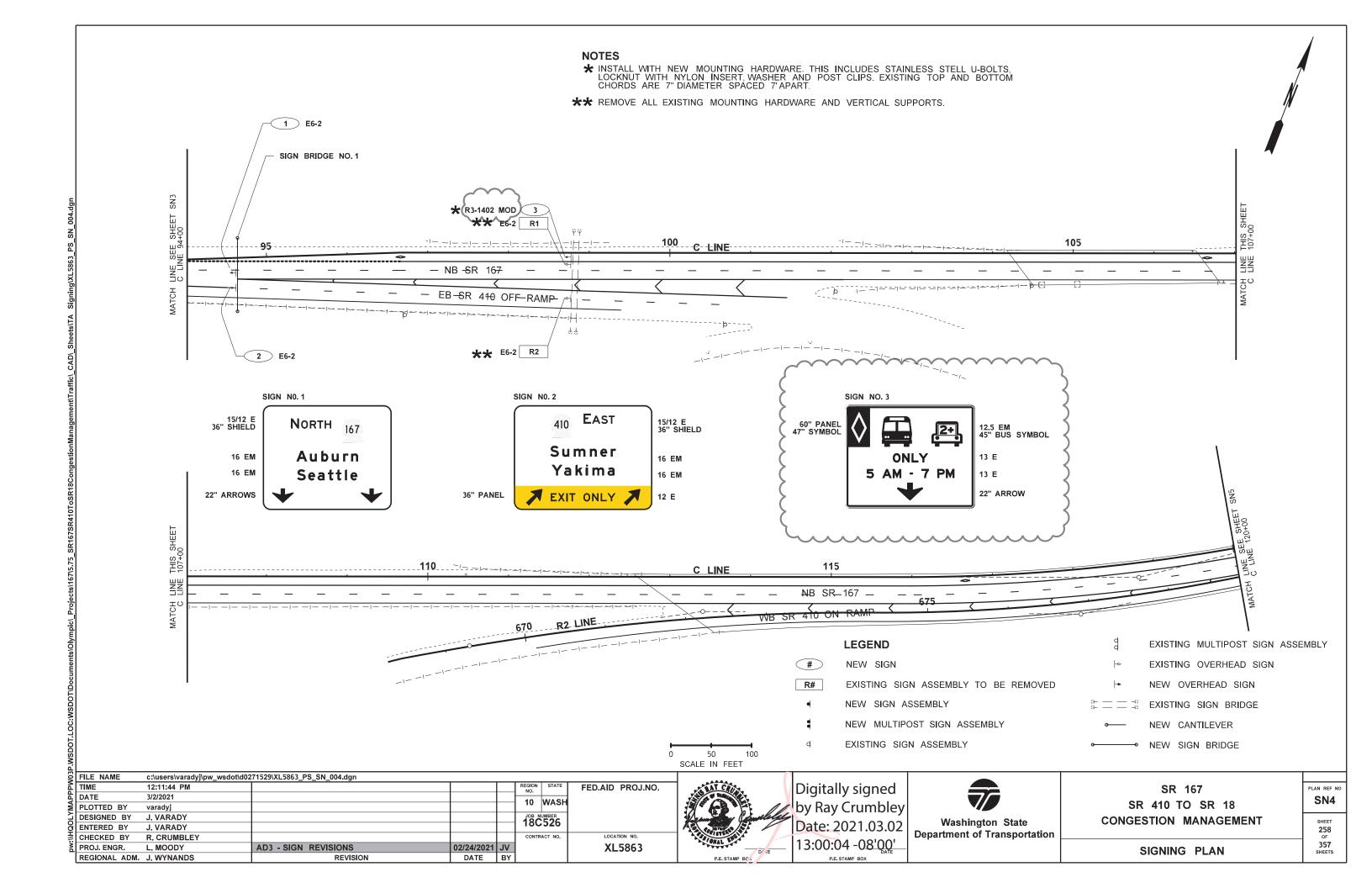
WHEN SIGN IS PLACED BEHIND CURB THE V-DIMENSION SHALL BE MEASURED FROM THE TOP OF THE CURB AND THE W-DIMENSION SHALL BE MEASURED FROM THE FACE OF CURB CLOSEST TO THE DIRECTION OF TRAFFIC THE SIGN IS FACING. FOR TYPE ST-4 AND SB SIGN SUPPORT FOUNDATIONS, THE CONTRACTOR MAY USE COMMERCIAL CONCRETE.

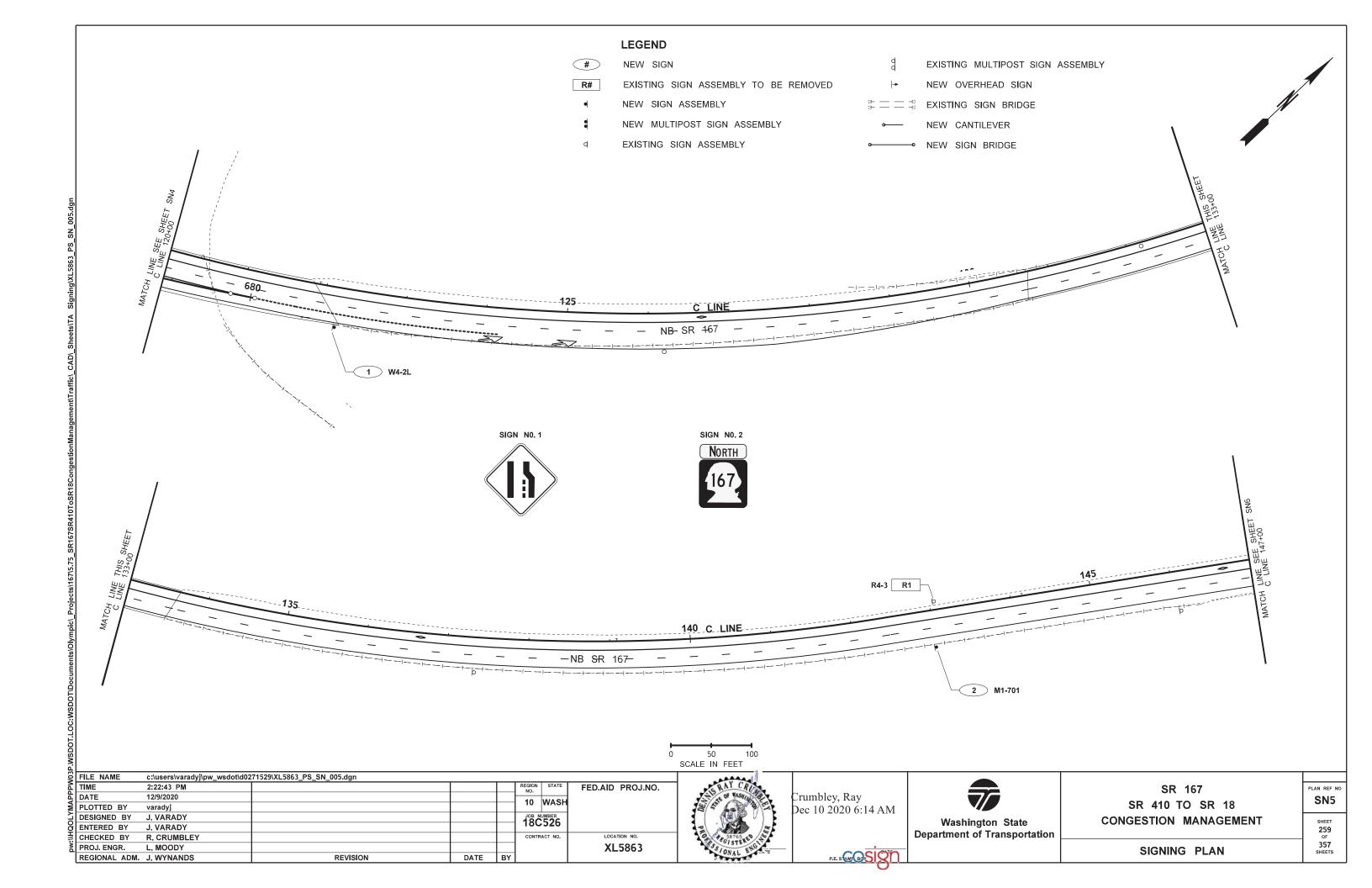
- \*: TYPE II BACKGROUND; TYPE III OR IV FOR LETTERS, BORDERS, AND SYMBOLS.
- \*\*: TYPE III OR IV BACKGROUND; TYPE VIII OR IX FOR LETTERS, BORDERS, AND SYMBOLS.

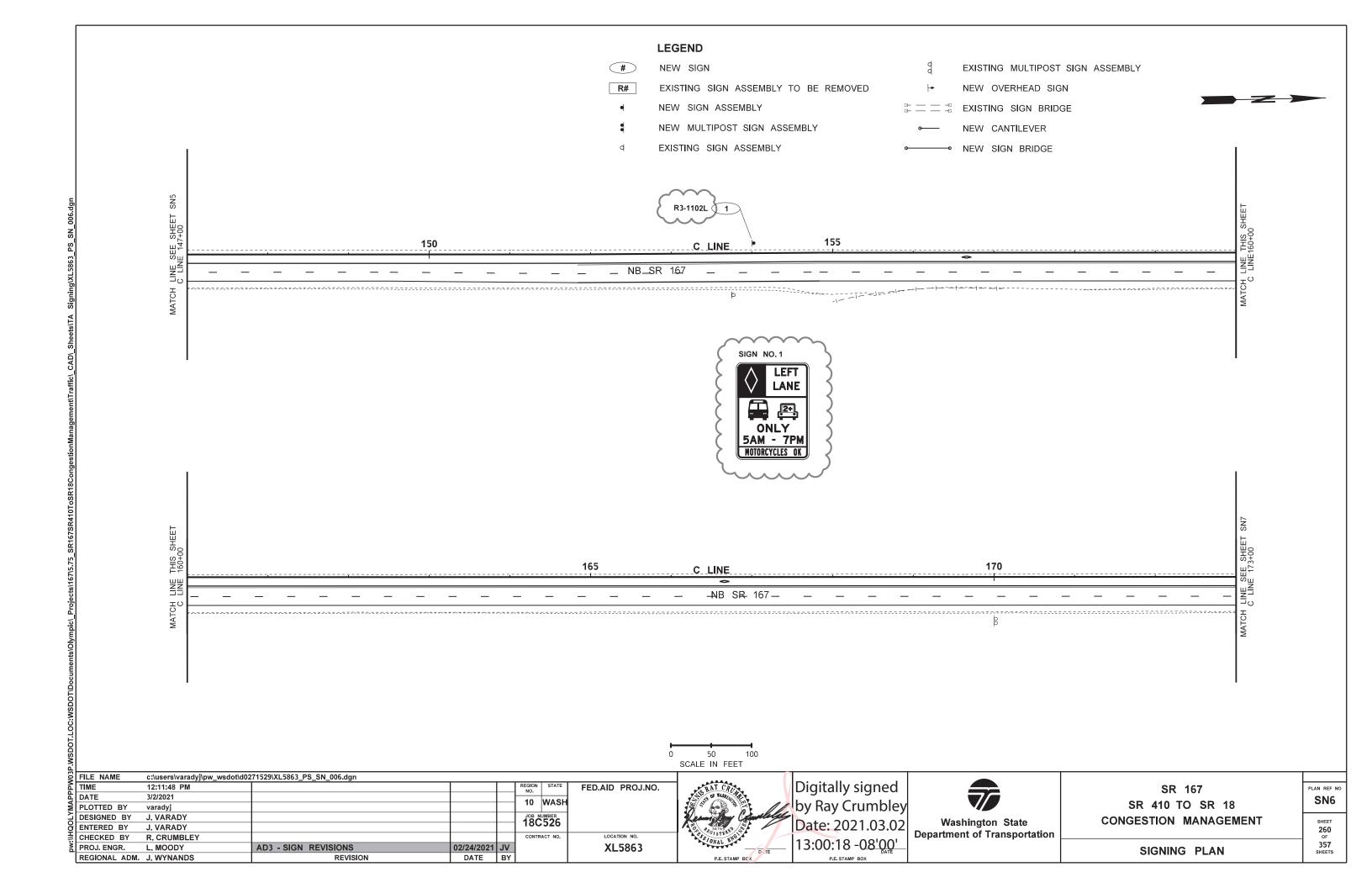
- 1: USE STEEL SIGN SUPPORT TP-A OR TP-B (SEE STANDARD PLAN G-24.60)
- 2: SEE STANDARD PLAN G-30.10 FOR MOUNTING SIGNS TO STRUCTURES.
- 3: USE 7 GA. 3" SQUARE STEEL POST WITH SB-1A AND 10" TRIANGULAR SLIP BASE; INSTALL IN ACCORDANCE WITH STANDARD PLAN G-24.40.
- 4: REMOVE SINGLE POST FOUNDATIONS IN THEIR ENTIRETY. W-BEAM FOUNDATION SHALL BE REMOVED 2 FEET BELOW SUBGRADE AND FILL AND COMPACT VOIDS IN ACCORDANCE WITH STANDARD SPECIFICATION 2-09.3(1)E.
- 5: SEE ITS PLANS FOR DYNAMIC DISPLAYS DETAILS.
- 6: RELOCATE SIGN TO NEW POST BEHIND WALL. "W" SHALL BE MEASURED FROM THE BACK OF WALL.

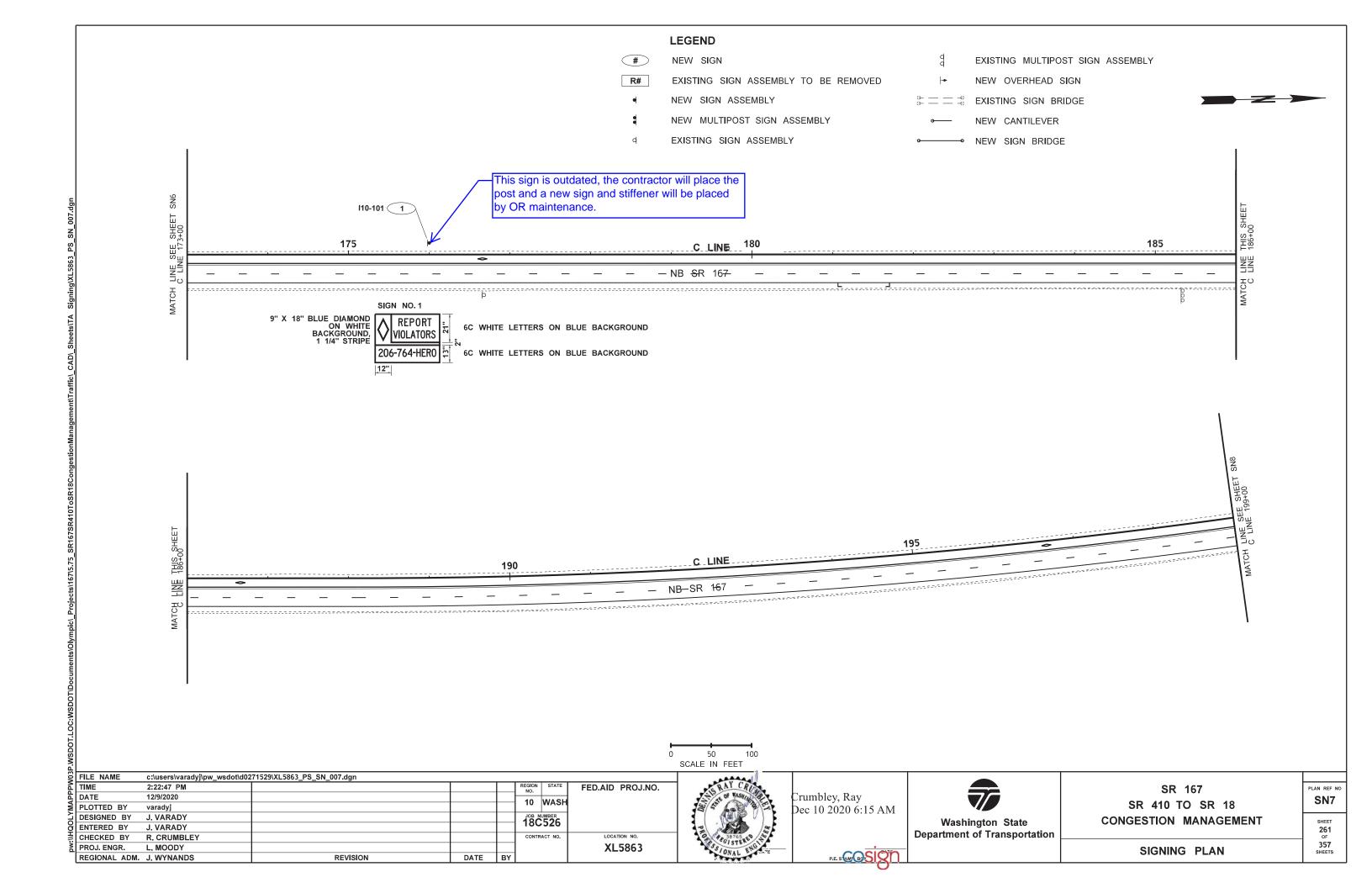
C:\Users\VaradyJ\Documer	nts\167	HOT LANES\XL 5863 SR167	ETL Project	\Sign Spec\[>	REGION NO.	STATE	FED. AID PROJ. NO.				
12/15/20 7:21 AM								Cri	umbley, Ray	SR 167	SS 3
DESIGNED BY	J. VARADY				10	WASH		Tail A Ball a let	ec 16 2020 6:13 AM	SR 410 TO SR 18	
ENTERED BY	J. VARADY								Washington State Department of Transportation	CONGESTION MANAGEMENT	SHEET
CHECKED BY	R. CRUMBLEY				JOB I	NUMBER		0 4, 38765 10	Department of Transportation		256
PROJ. ENGR.	L. MOODY				18	3C526		SSIONAL ENGINE	cocion		OF
REGION ADM.	J. WYNANDS				CONTI	RACT NO.		anna.	cosign	SIGN SPECIFICATIONS	357
		REVISION	DATE	BY							SHEETS

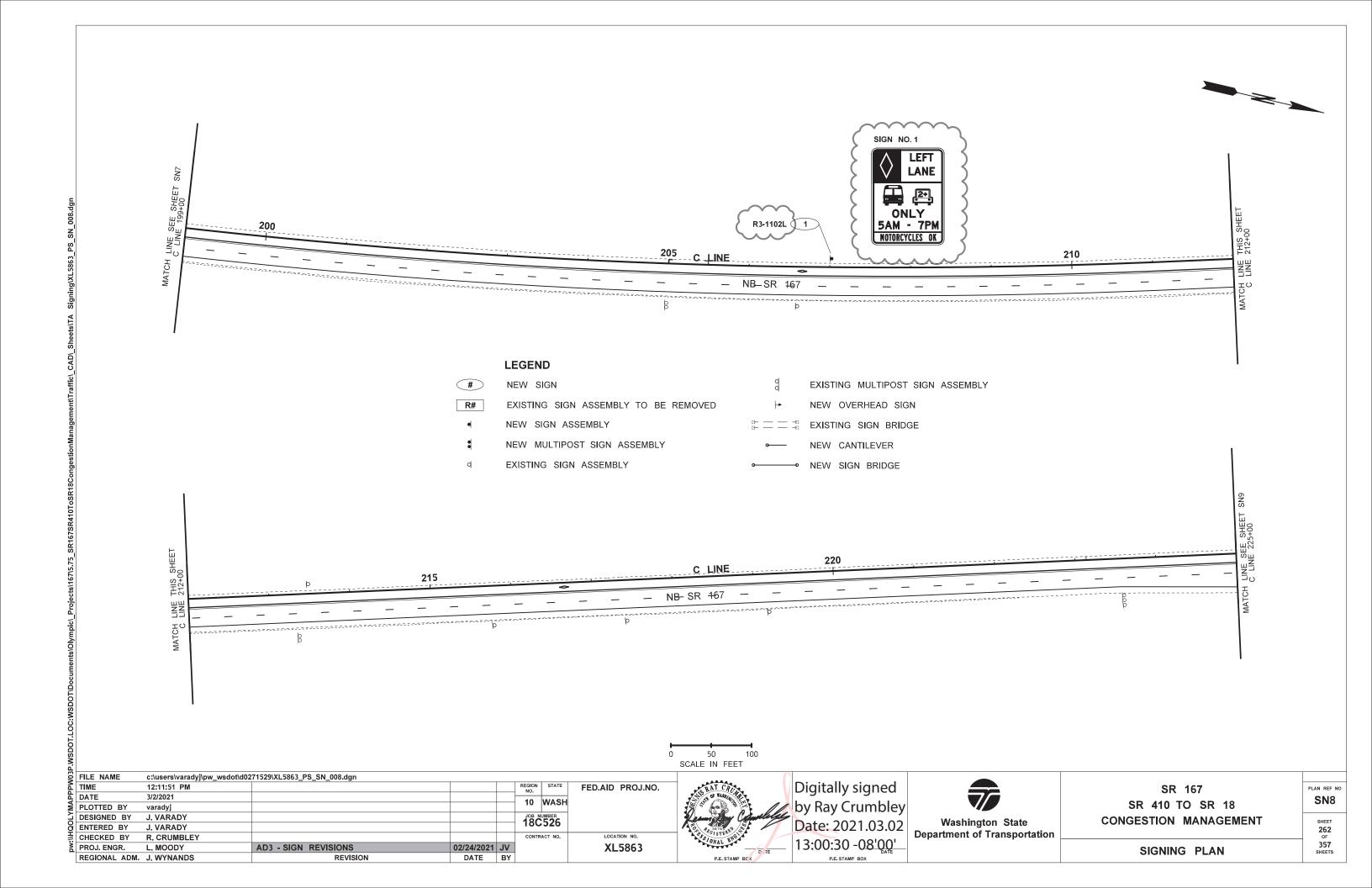


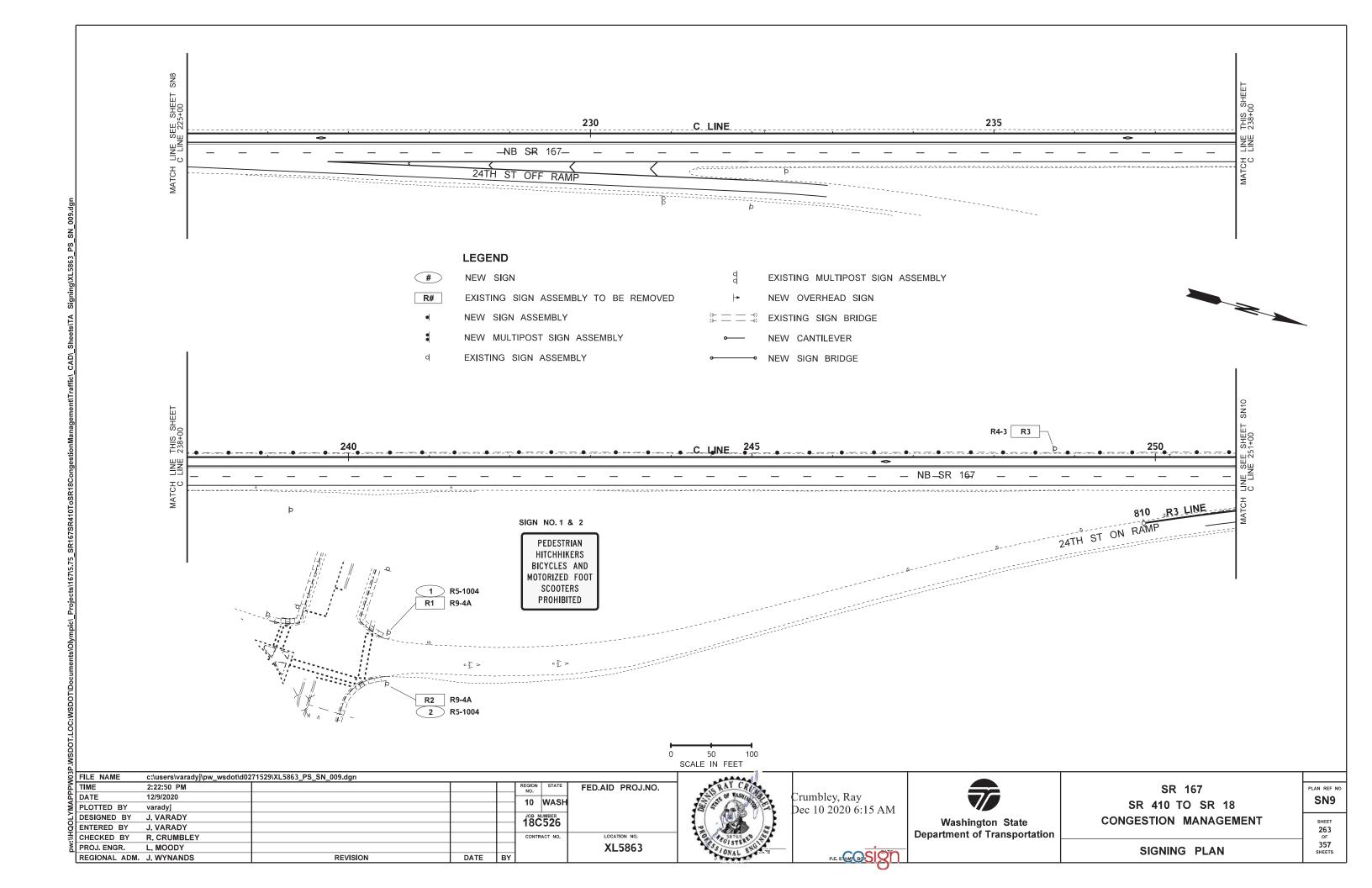


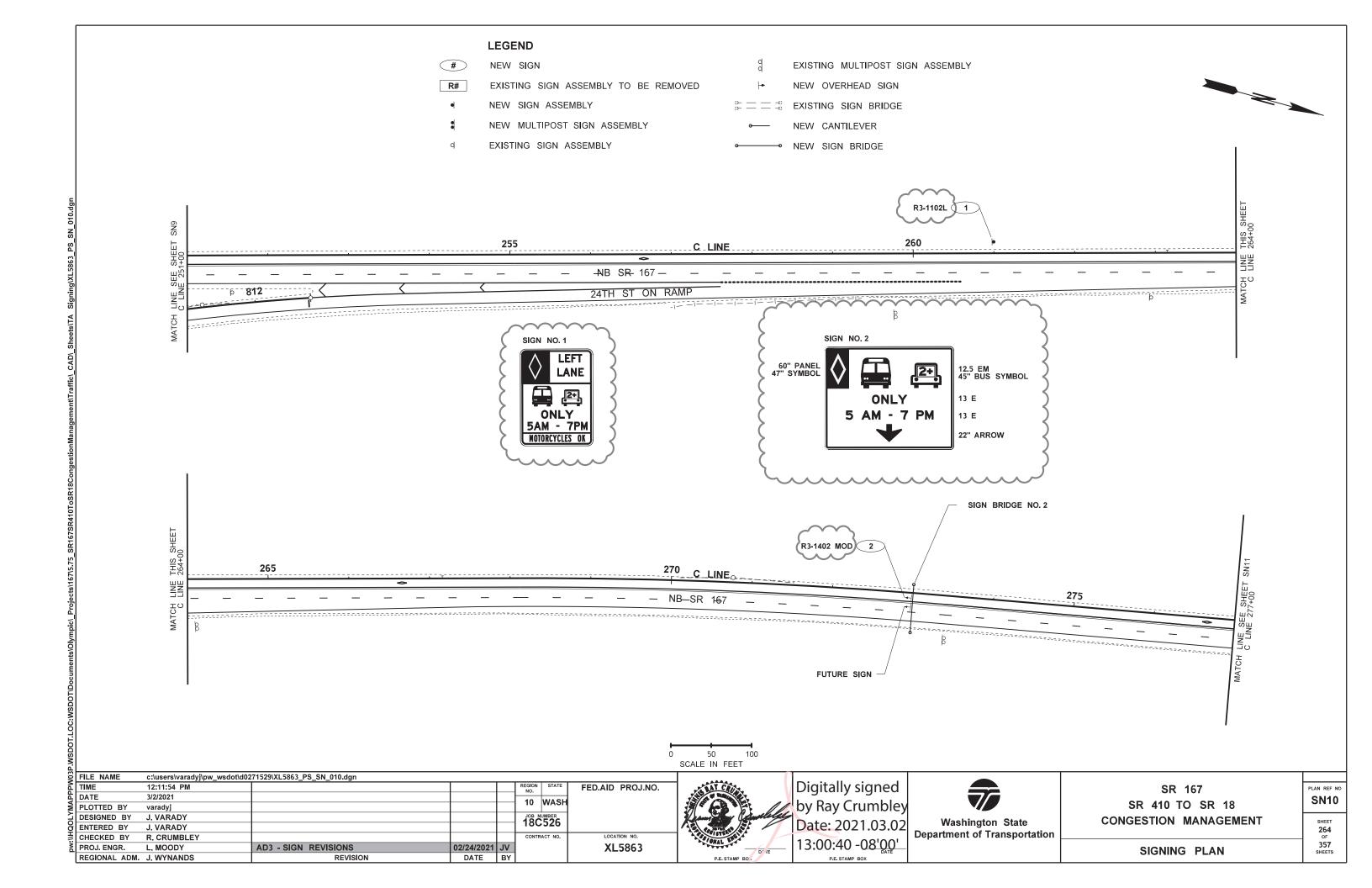


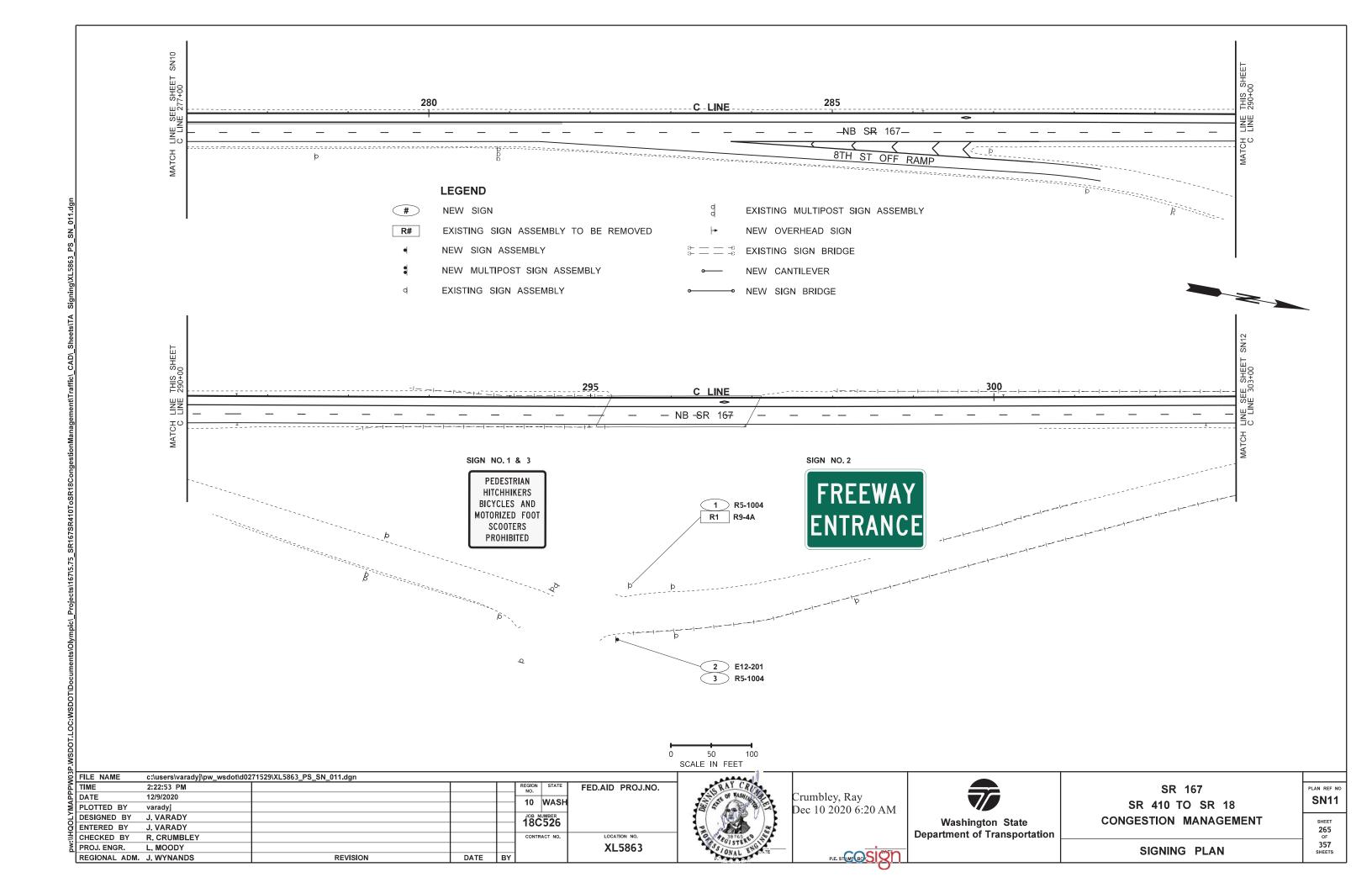


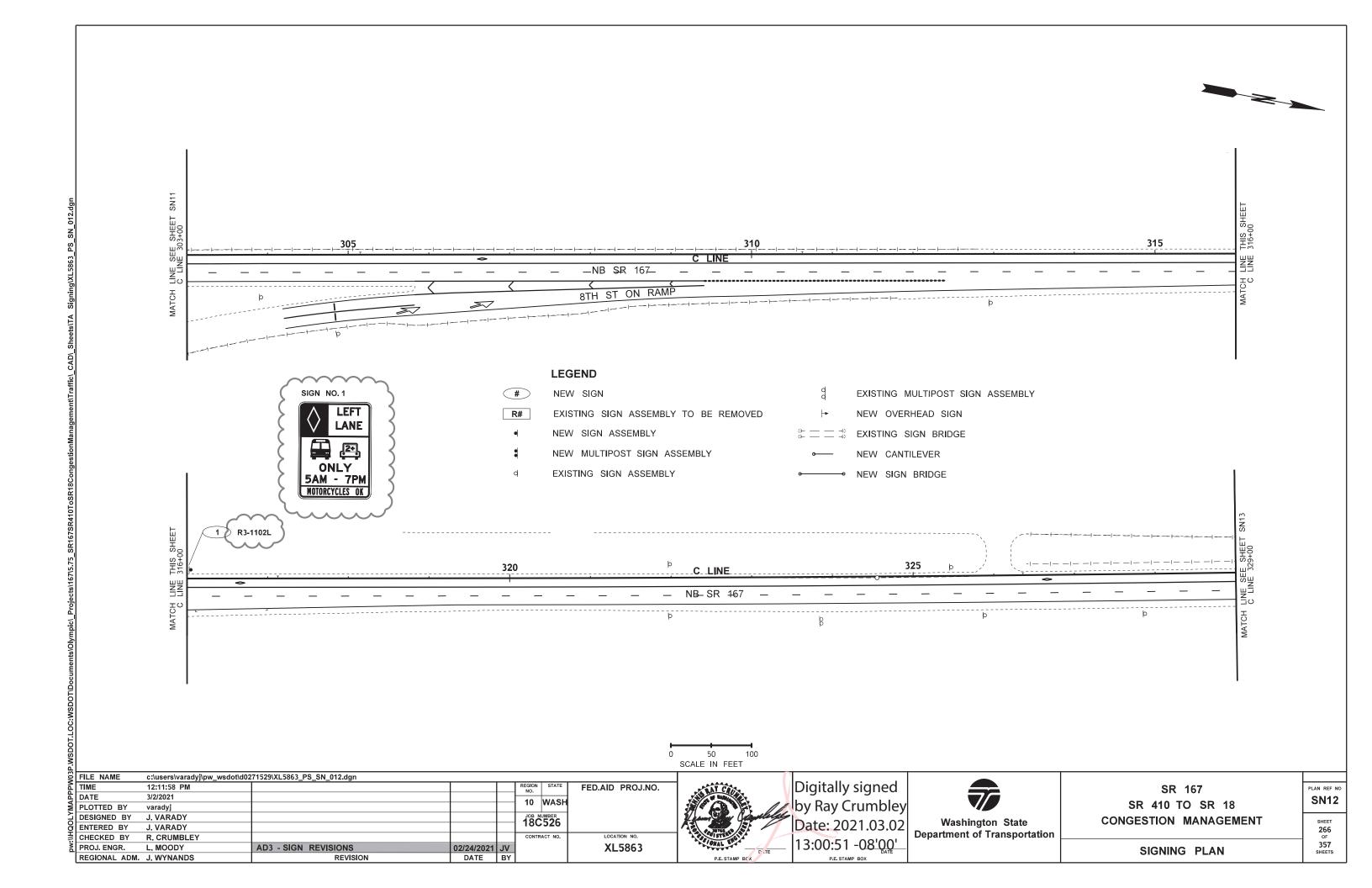


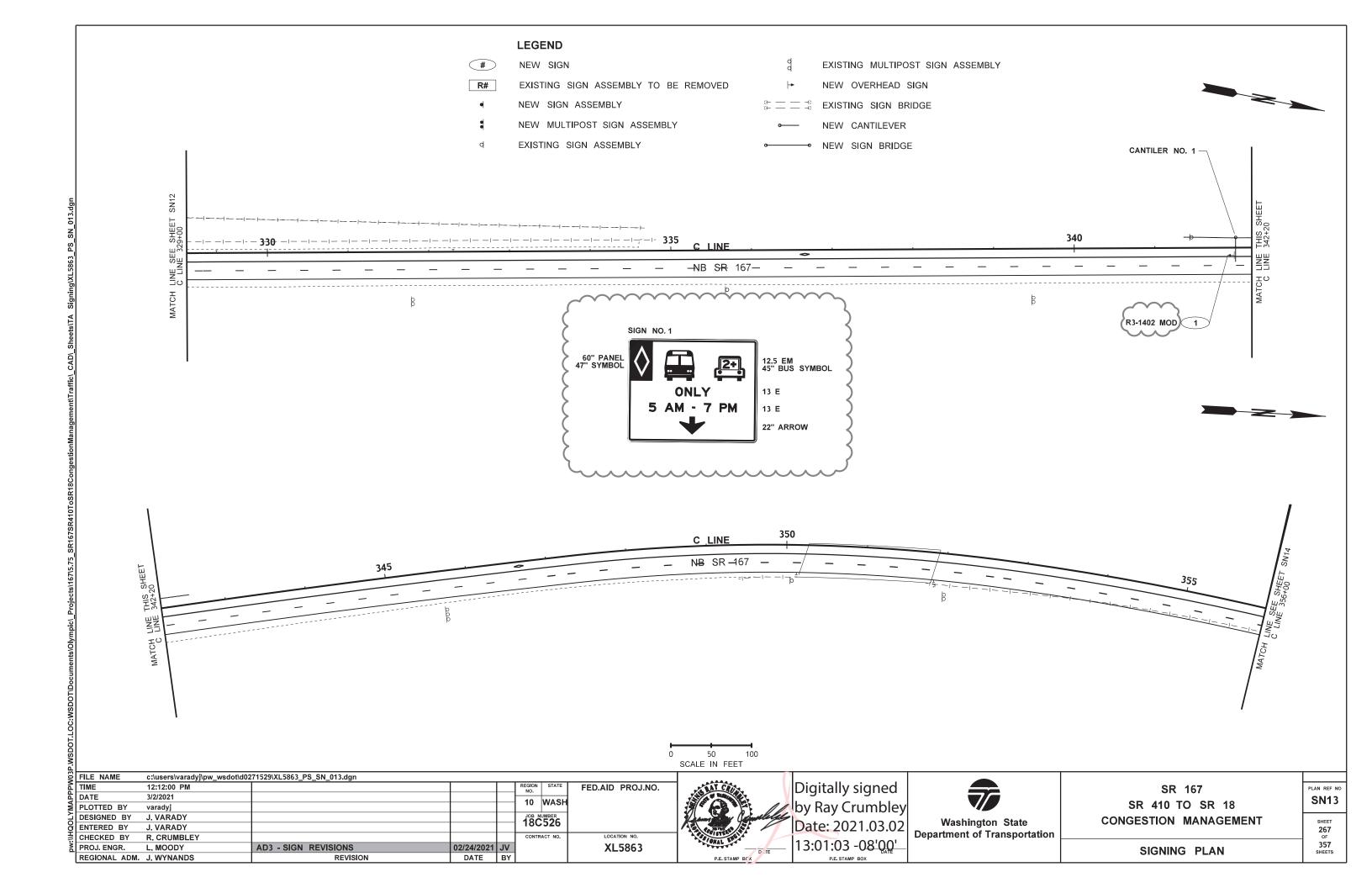




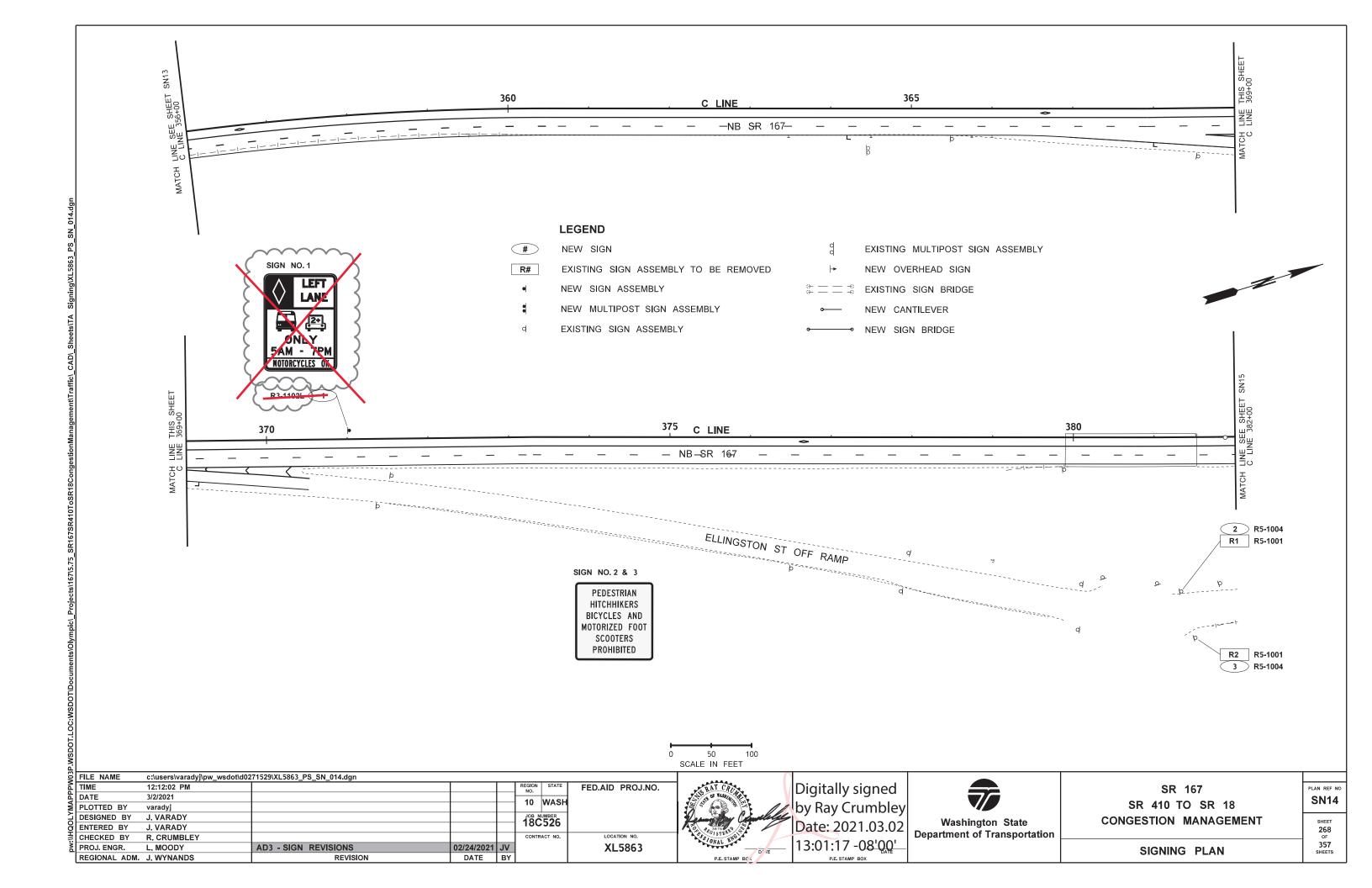




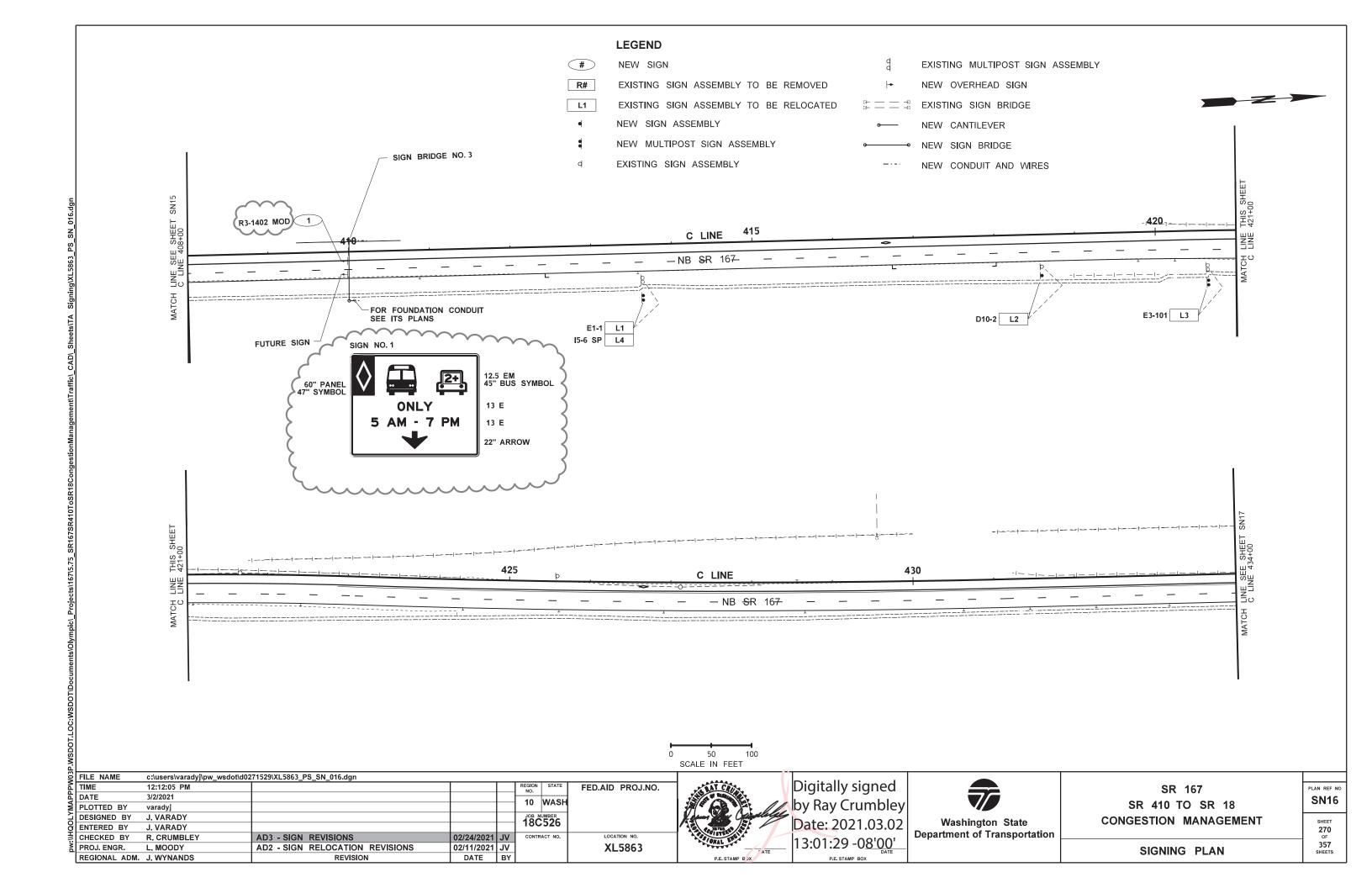


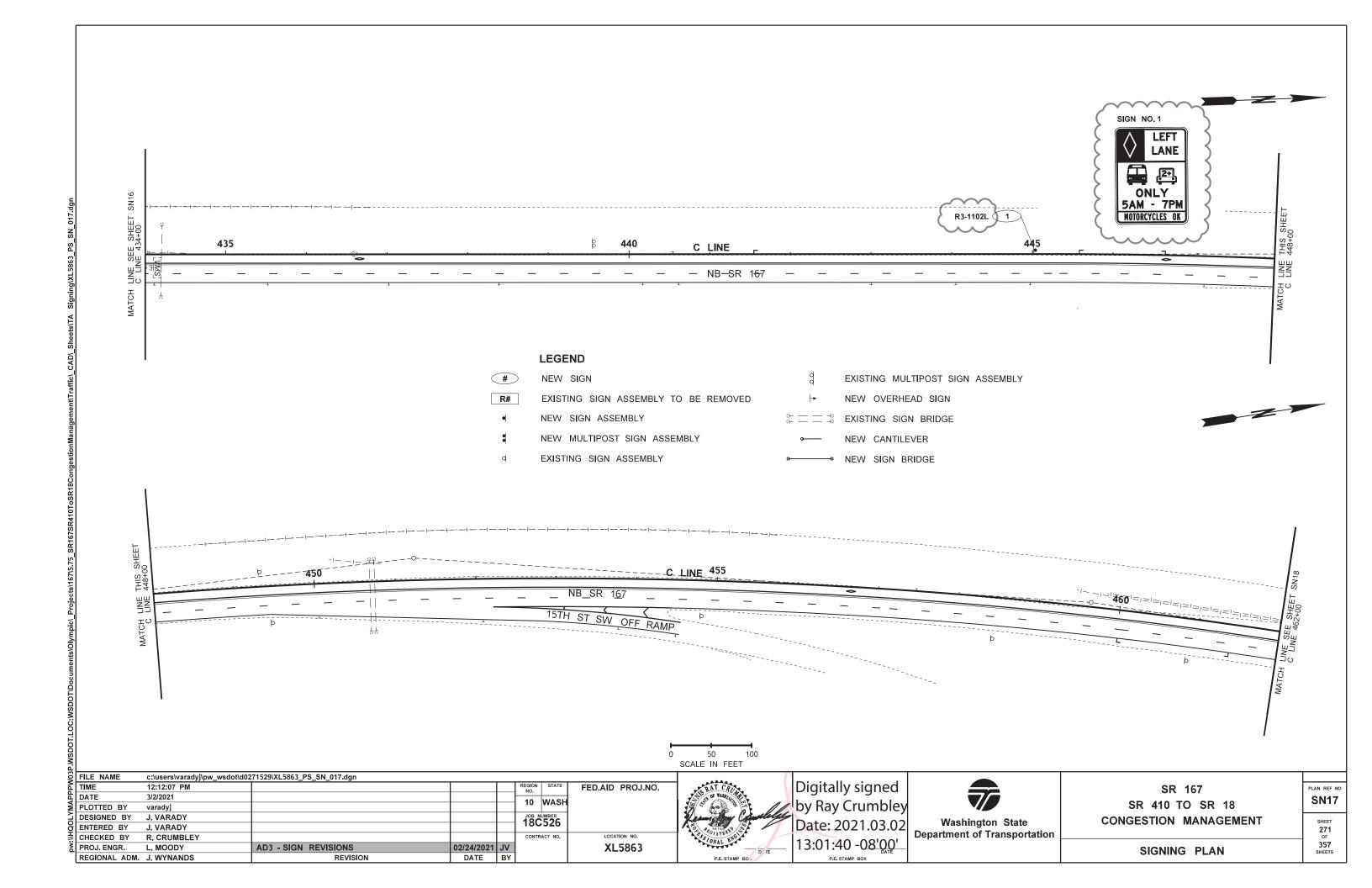


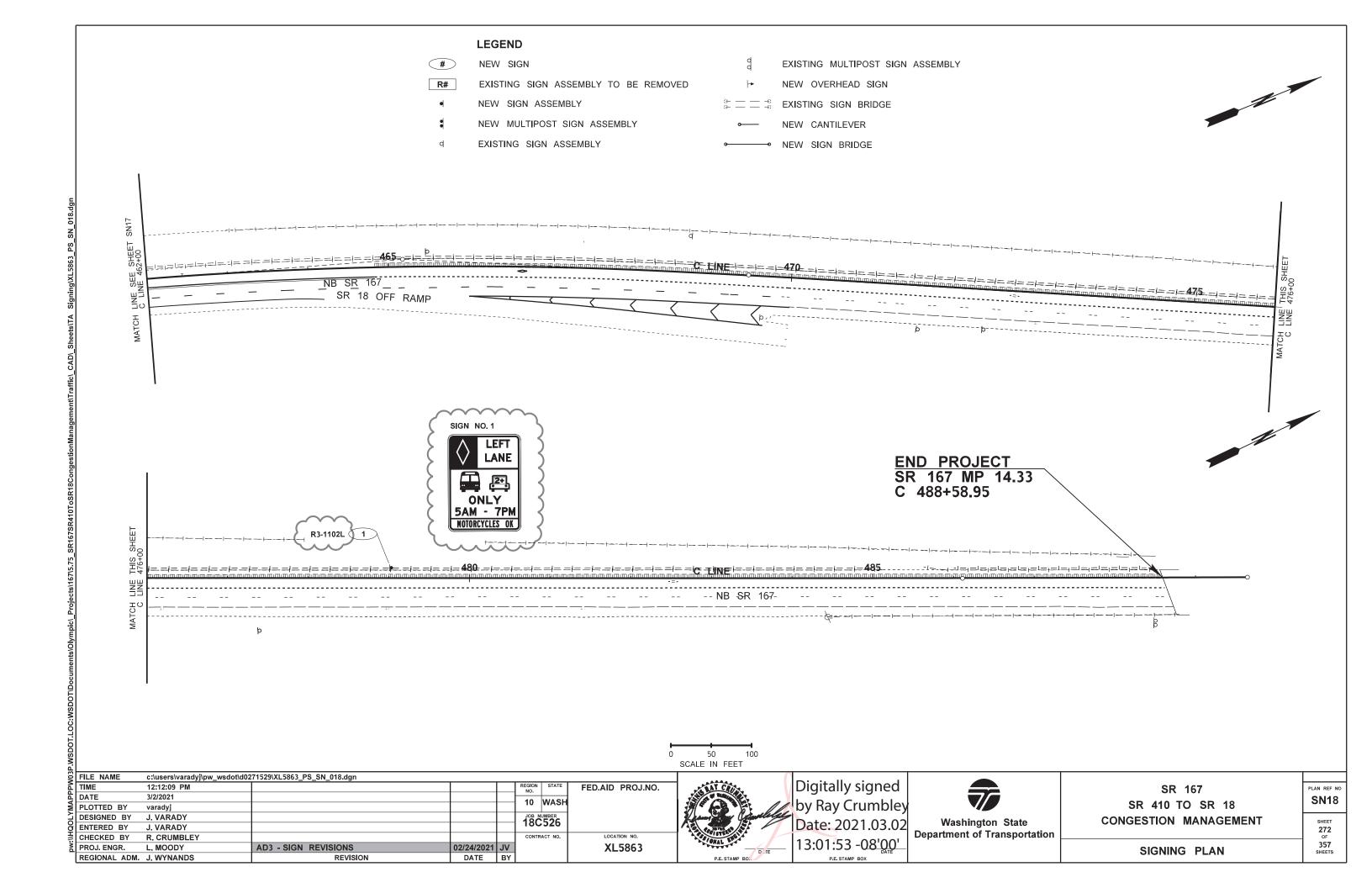
Page 5 of 6 CHANGE ORDER NO.: 006 CONTRACT NO.: 009636 360 365 C LINE -NB SR 167-**LEGEND** # NEW SIGN EXISTING MULTIPOST SIGN ASSEMBLY SIGN NO.1 EXISTING SIGN ASSEMBLY TO BE REMOVED NEW OVERHEAD SIGN NEW SIGN ASSEMBLY EXISTING SIGN BRIDGE NEW MULTIPOST SIGN ASSEMBLY NEW CANTILEVER EXISTING SIGN ASSEMBLY NEW SIGN BRIDGE ONLY 5AM - 7PM NOTORCYCLES OK 375 C LINE 380 370 NB—SR 167 2 R5-1004 R1 R5-1001 SIGN NO. 2 & 3 **PEDESTRIAN** HITCHHIKERS **BICYCLES AND** MOTORIZED FOOT SCOOTERS **PROHIBITED** R2 R5-1001 3 R5-1004 SCALE IN FEET c:\users\varadyj\pw\_wsdot\d0271529\XL5863\_PS\_SN\_014.dgn FILE NAME Digitally signed FED.AID PROJ.NO. SR 167 PLAN REF NO DATE **SN14** 10 WASH by Ray Crumbley SR 410 TO SR 18 PLOTTED BY DESIGNED BY J. VARADY 18C526 **CONGESTION MANAGEMENT** Washington State
Department of Transportation 268 Date: 2021.03.02 ENTERED BY J. VARADY CONTRACT NO. CHECKED BY R. CRUMBLEY CO #06 - ELLINGSON VIC SIGN RELOCATION LOCATION NO. 357 SHEETS 13:01:17 -08'00' 02/24/2021 JV DATE BY AD3 - SIGN REVISIONS XL5863 PROJ. ENGR. L. MOODY SIGNING PLAN REGIONAL ADM. J. WYNANDS

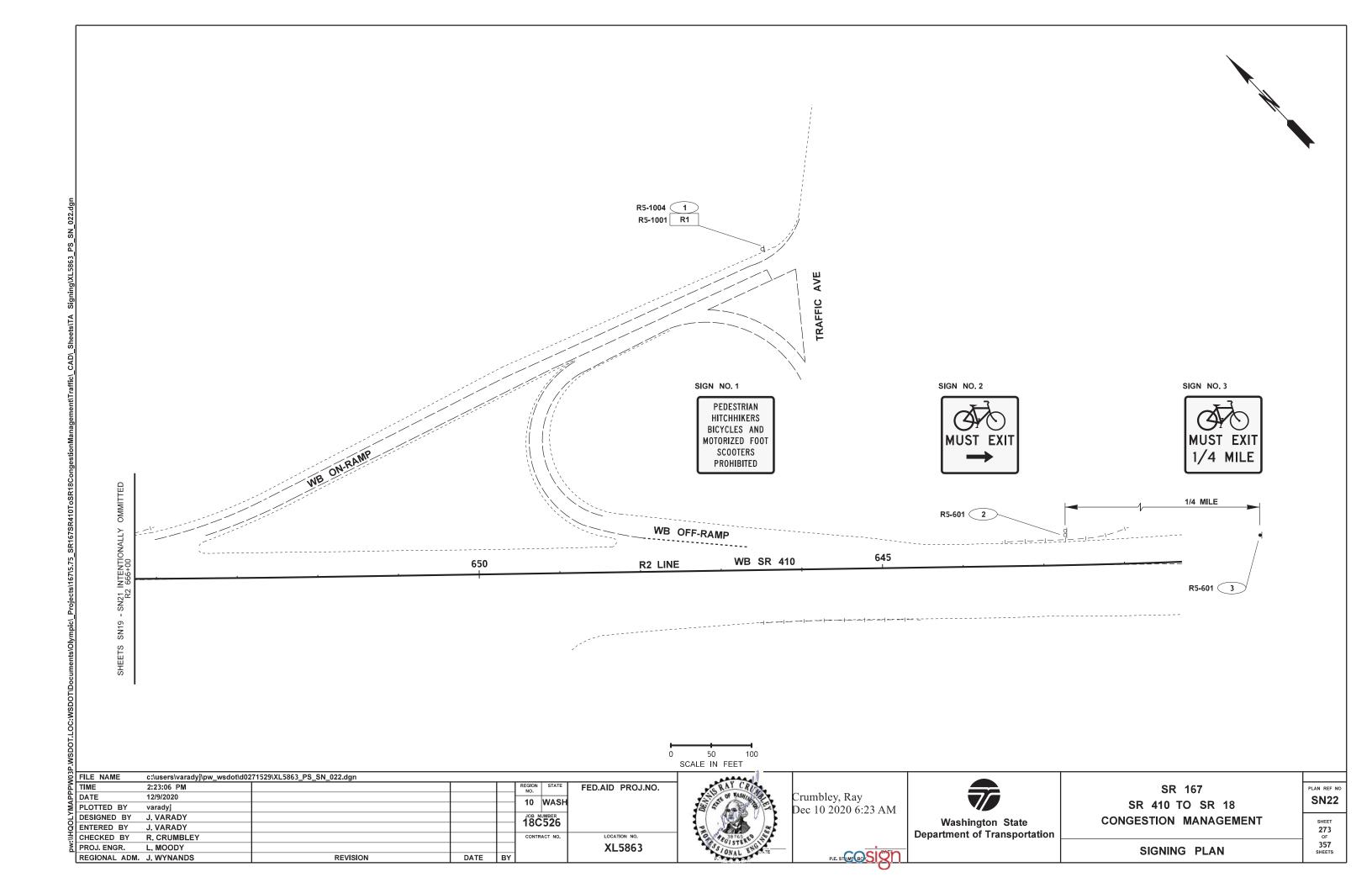


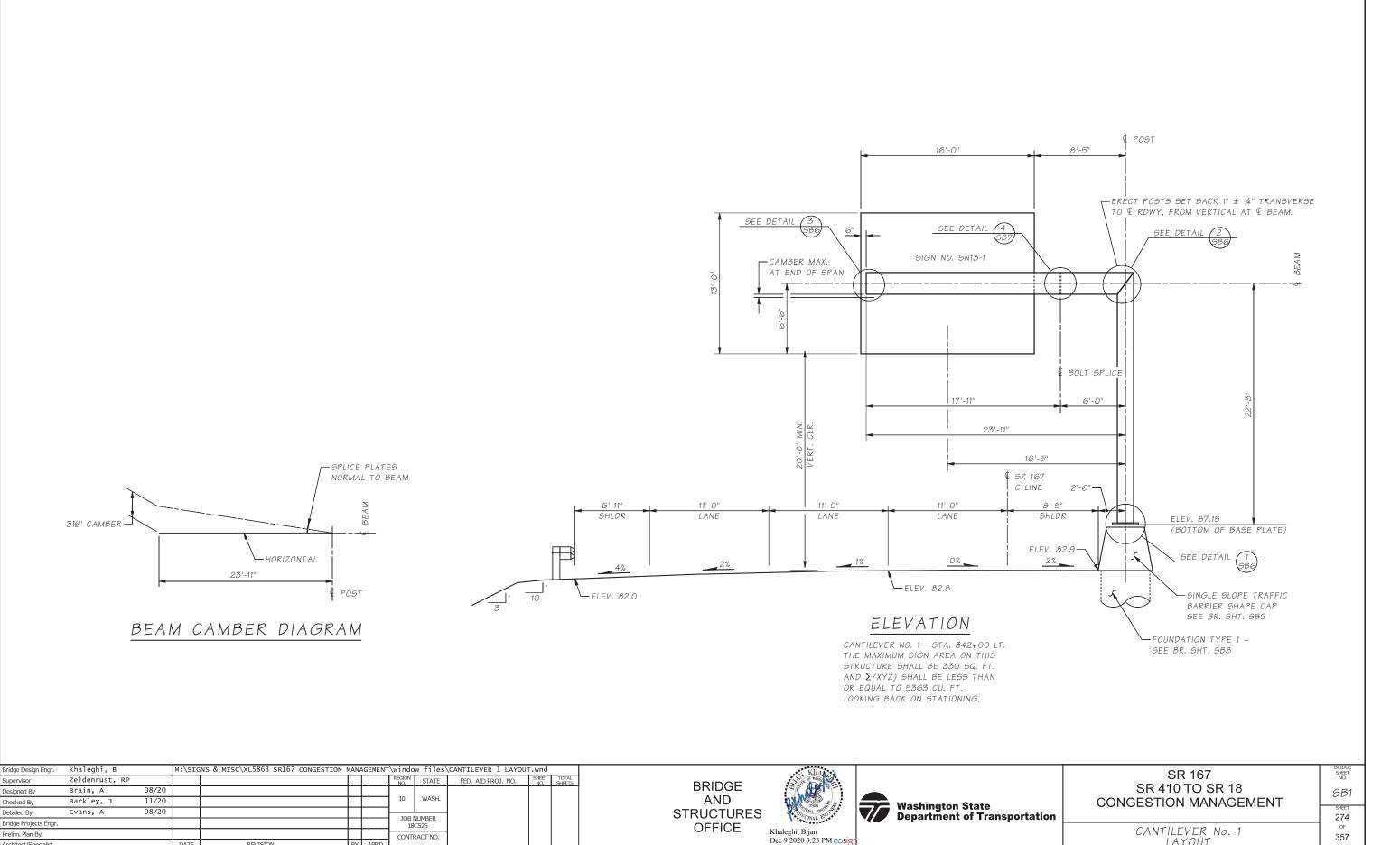
Page 6 of 6 CHANGE ORDER NO.: 006 **LEGEND** CONTRACT NO.: 009636 # NEW SIGN EXISTING MULTIPOST SIGN ASSEMBLY EXISTING SIGN ASSEMBLY TO BE REMOVED NEW OVERHEAD SIGN L1 EXISTING SIGN ASSEMBLY TO BE RELOCATED EXISTING SIGN BRIDGE NEW SIGN ASSEMBLY NEW CANTILEVER NEW MULTIPOST SIGN ASSEMBLY NEW SIGN BRIDGE EXISTING SIGN ASSEMBLY C LINE 390 LG-M3A L2 -NB S<del>R</del> 167- -ELLINGSTON ON RAMP 400 405 C LINE NB—SR 167 15<sub>0</sub> E1-1 L1 SCALE IN FEET c:\users\varadyj\pw\_wsdot\d0271529\XL5863\_PS\_SN\_015.dgn FILE NAME FED.AID PROJ.NO. REGION NO. SR 167 PLAN REF NO DATE 12/9/2020 Crumbley, Ray **SN15** 10 WASH SR 410 TO SR 18 PLOTTED BY Dec 10 2020 6:22 AM DESIGNED BY J. VARADY 18C526 **CONGESTION MANAGEMENT** Washington State
Department of Transportation 269 ENTERED BY J. VARADY CHECKED BY R. CRUMBLEY LOCATION NO. 357 SHEETS XL5863 PROJ. ENGR. L. MOODY CO #06 - ELLINGSON VIC SIGN RELOCATION 09/06/2022 SIGNING PLAN DATE REGIONAL ADM. J. WYNANDS











357

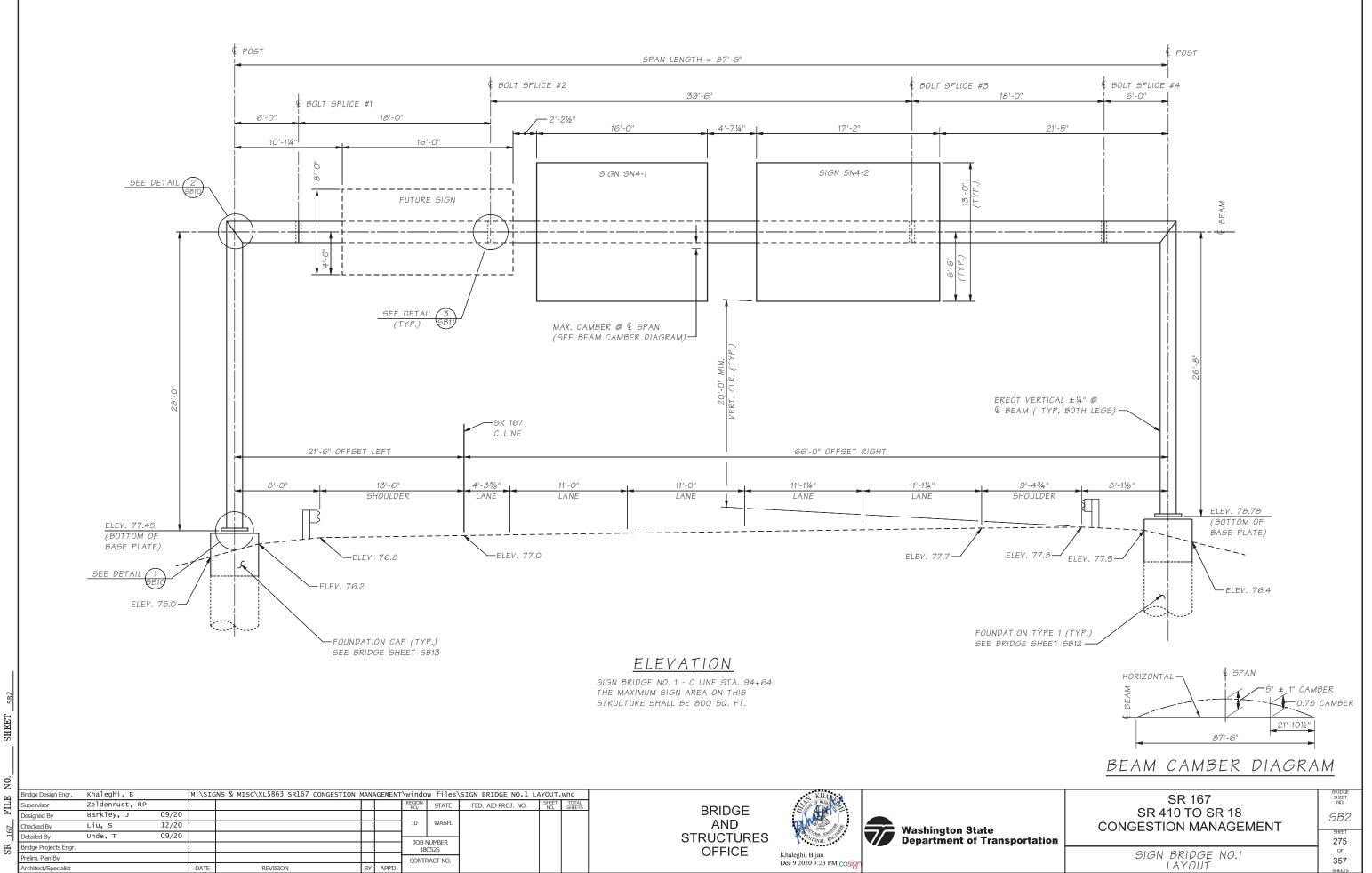
LAYOUT

CONTRACT NO.

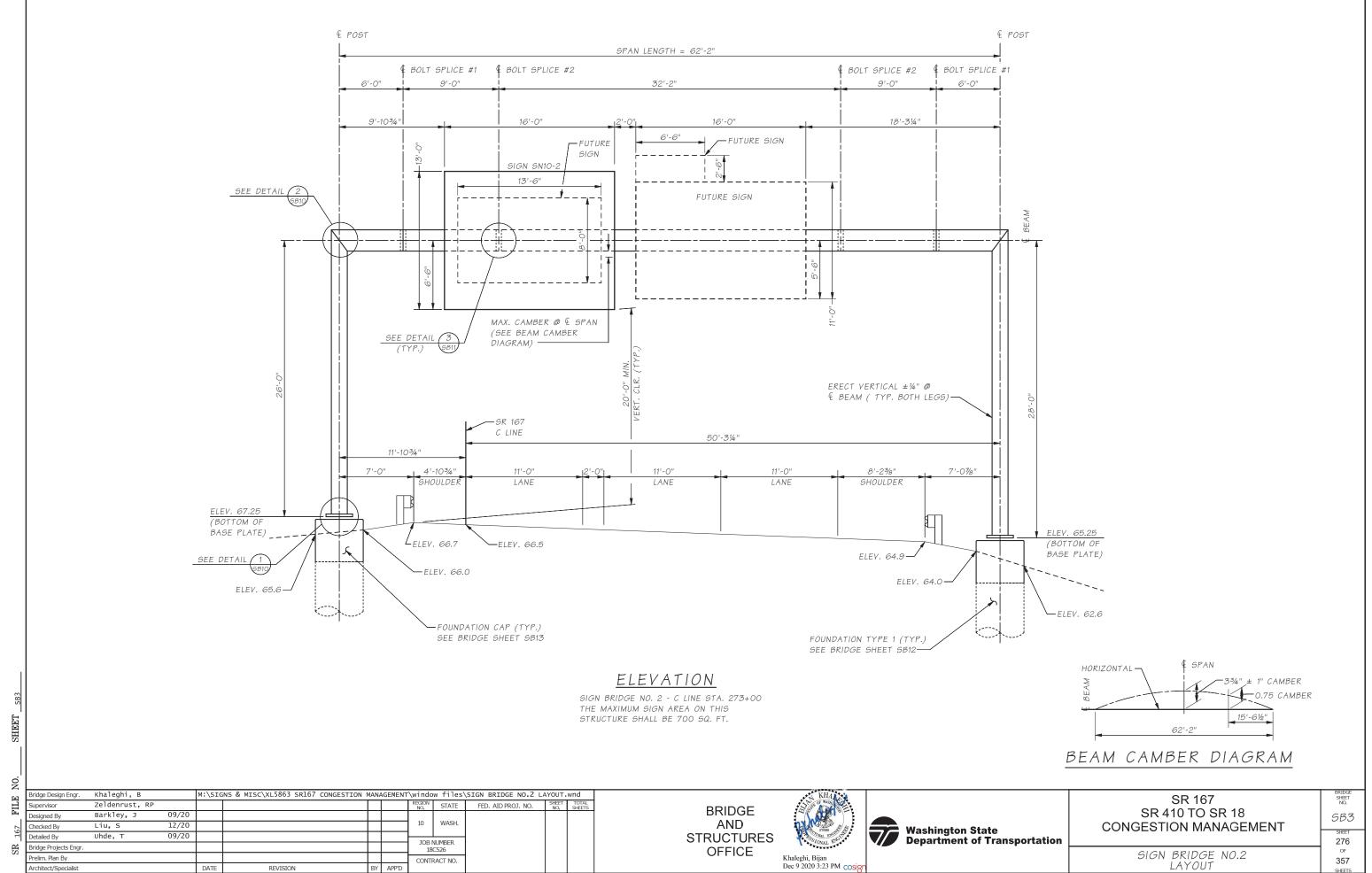
Prelim. Plan By

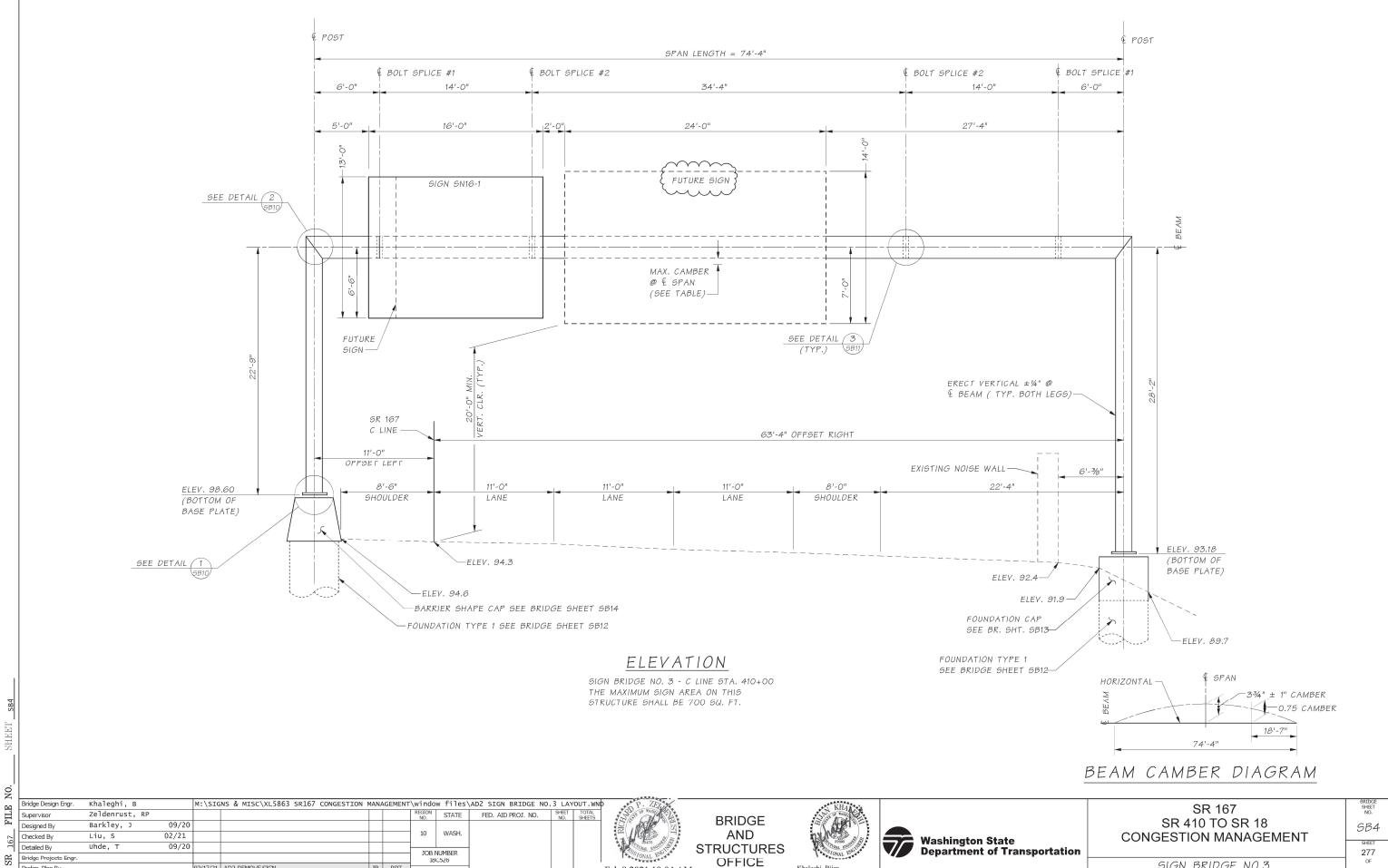
Architect/Specialist

DATE



Wed Dec 09 15:19:55 2020





Feb 8 2021 10:04 AM

SIGN BRIDGE NO.3

LAYOUT

357

relim. Plan Bv

Architect/Specialist

02/17/21 AD2-REMOVE SIGN.

JB RPZ

CONTRACT NO.

### GENERAL NOTES

- 1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD. BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2020 AND AMENDMENTS.
- 2. THE SIGN STRUCTURES DESIGN AND ANALYSIS HAS BEEN DONE IN ACCORDANCE WITH AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS - FIRST EDITION - DATED 2015 (INCLUDING LATEST INTERIMS), USING BASIC WIND SPEED OF 115 MPH, WITH A MEAN RECURRENCE INTERVAL OF 1700 YEARS AND A FATIGUE CATEGORY I.
- 3. ALL BUTT JOINT WELDS SHALL BE FULL PENETRATION GROOVE WELDS WITH BACK-UP PLATES OF 14" MIN. THICKNESS.
- 4. THE BACK-UP PLATES FOR ALL FULL PENETRATION WELDS SHALL BE WELDED CONTINUOUSLY TO THE JOINED PIECES. THIS CAN BE DONE BY EITHER A CONTINUOUS FILLET WELD ON THE BACK SIDE OF THE PIECE, OR BY A CONTINUOUS WELD IN THE ROOT OF THE FULL PENETRATION WELD, UNLESS OTHERWISE NOTED.
- 5. ALL RODS, BOLTS, AND RELATED HARDWARE SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM F 2329.
- 6. ALL STEEL SURFACES SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M 111. MAINTENANCE PLATFORMS AND ASSOCIATED HANDRAILINGS SHALL NOT BE PAINTED.
- 7. SIGN PANELS AS SHOWN IN THE CONTRACT PLANS SHALL BE INSTALLED WITH THE SIGN STRUCTURE OR IMMEDIATELY AFTER THE SIGN STRUCTURE IS ERECTED.
- 8. FABRICATE SIGN BRIDGE BEAM TO PROVIDE SMOOTH PARABOLIC CAMBER CURVE. SEE CAMBER DIAGRAM. DO NOT SHIM AT BOLTED SPLICES.
- 9. FABRICATE CANTILEVER BEAM TO PROVIDE STRAIGHT CAMBER, SEE CAMBER DIAGRAM. DO NOT SHIM AT BOLTED SPLICES.

10. FABRICATE POST STRAIGHT.

11. MATERIALS SPECIFICATIONS:

ALL STRUCTURAL STEEL EXCEPT ASTM A 572 GR. 50 OR ASTM A 588

AS OTHERWISE NOTED

ANCHOR RODS ASTM F 1554 GR. 105 HANDHOLE COVER SCREWS ASTM F 593 GR. 1 SPLICE BOLTS

ASTM F 3125 GR. 325 SIGN BRACKET RODS ASTM A 307 ASTM F 3125 GR. 325 MOUNTING BEAM BOLTS

COVER PLATES ASTM A 36

- 12. BOTTOM OF BASE PLATE ELEVATIONS AND POST HEIGHTS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD MEASURE ANCHOR ROD LOCATIONS, ELEVATIONS, CLEARANCES AND ALL STEEL STRUCTURE DIMENSIONS, AND SUBMIT TO ENGINEER FOR APPROVAL PRIOR TO COMPLETION OF FABRICATION. AS AN OPTION FOR SIGN BRIDGES, CAP OF ONE FOUNDATION MAY BE PLACED WHILE COMPLETED SIGN BRIDGE IS TEMPORARILY SUPPORTED IN PLACE.
- 13. POSTS, BASE PLATES, BEAMS AND SPLICE PLATES ARE MAIN LOAD CARRYING TENSILE MEMBERS OR TENSION COMPONENTS OF FLEXURAL MEMBERS AND SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST AS DESCRIBED IN SECTION 6-03.2 FOR AASHTO M 270 MATERIAL. NON-DESTRUCTIVE TEST ACCEPTANCE CRITERIA TO CONFORM TO TENSILE MEMBERS WITH CYCLIC LOAD.
- 14. SEE OTHER PLANS FOR CONDUIT PENETRATIONS AND HAND HOLES. REFER TO ELECTRICAL PLANS FOR INTERNAL ROUTING OF CONDUCTORS. CONDUIT CONDUCTORS SHALL NOT BE ATTACHED TO THE OUTSIDE OF THE SIGN STRUCTURE.
- 15. THE MAXIMUM SIGN AREA ON THE STRUCTURE SHALL BE AS NOTED.
- 16. FOR SIGN AND LIGHT ATTACHMENT BRACKET DETAILS FOR MONOTUBES SEE STANDARD PLAN G-90.20. PAINT ENTIRE ATTACHMENT BRACKET TO MATCH EXISTING STRUCTURE EXCEPT FOR MOUNTING BEAM. SIGN, BEAM LENGTHS, AND SIZE SHALL BE DETERMINED FROM THE STANDARD PLANS. SPACING SHALL BE DETERMINED FROM THE CONTRACT PLANS.
- 17. THE TOTAL BEAM LENGTH "S" SHALL NOT EXCEED 35'-O" FOR THE CANTILEVER.
- 18. ALL WELDING SHALL BE DONE TO MINIMIZE DISTORTION. PERMISSIBLE MONOTUBE DIMENSION VARIATIONS FOR OUTSIDE DIMENSIONS, WALL THICKNESS, LENGTH, STRAIGHTNESS, (PARABOLICALLY CAMBERED SIGN BRIDGE BEAMS EXCLUDED) SQUARENESS OF SIDES AND TWIST SHALL BE IN ACCORDANCE WITH SECTION 11 OF ASTM A500.

LEGEND

- IDENTIFIES SECTION OR VIEW

TAKEN OR SHOWN ON BRIDGE SHEET 15

IDENTIFIES DETAILS

TAKEN OR SHOWN ON THE SAME SHEET

SB5

278

357

M:\SIGNS & MISC\XL5863 SR167 CONGESTION MANAGEMENT\window files\GENERAL NOTES.wnd ridae Desian Enar. Khaleahi, B GION STATE Zeldenrust, RP FED. AID PROJ. NO. Barkley, J 09/20 esigned By WASH. 12/20 Checked By Liu. S Detailed By Uhde, T 09/20 JOB NUMBER Bridge Projects Engr Prelim. Plan By CONTRACT NO. rchitect/Specialis DATE



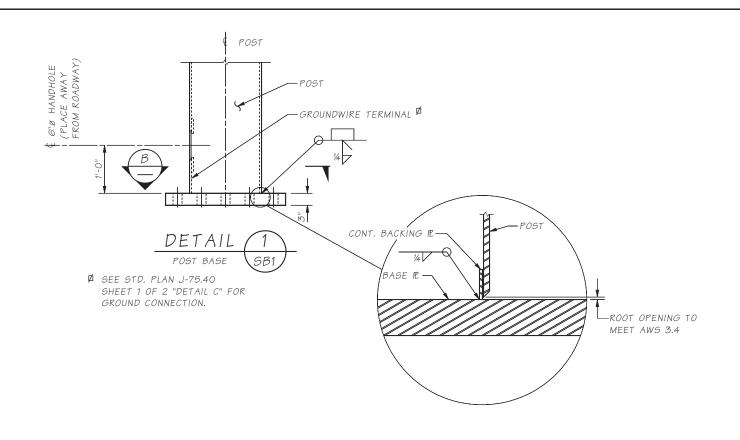
BRIDGE AND **STRUCTURES** OFFICE

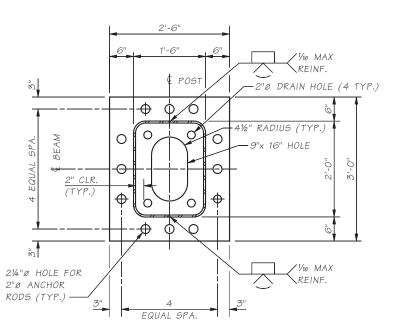


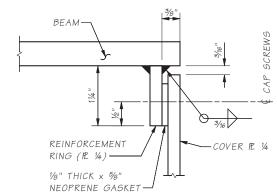


SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

GENERAL NOTES

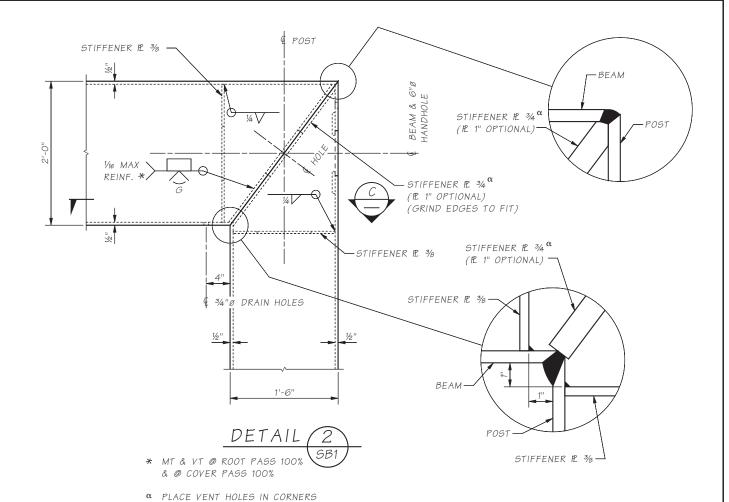








DETAIL 3
FOR CANTILEVER STRUCTURES ONLY.
4" CAP SCREWS ASTM F-593 ~
TAP REINFORCEMENT RING WITH 8
TOTAL EQUALLY SPACED AROUND COVER R



Bridge Design Engr.	Khaleghi, B		M:\SIG	GNS & MISC\XL5863 SF	R167 CONGESTION	MANA	AGEMENT	`\windo	w files	CANTILEVER 1 DETAI	LS 1.w	nd
Supervisor	Zeldenrust, RP					П		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Brain, A	08/20										
Checked By	Barkley, J	11/20						10	WASH.			
Detailed By	Evans, A	08/20						TOD	LI IMPED	-		
Bridge Projects Engr.									NUMBER C526			
Prelim. Plan By								CONTI	RACT NO.	1		
Architect/Specialist			DATE	REVISION		BY	APP'D	1				l I



BRIDGE AND STRUCTURES OFFICE





SECTION

DIAGONAL STIFFENER

NOT SHOWN

3" R. (TYP.)

OF STIFFENER P. 34 AS REQUIRED

₽ POST

FOR GALVANIZING PROCESS.

9" SQUARE HOLE CENTERED

THRU STIFFENERS WITH 3"

RADIUS AT CORNERS (TYP.)

34"Ø DRAIN HOLE BOTTOM FLANGE ONLY—

4" (TYP.)-

CLIP STIFFENER P. 3/8
AT RADIUS (TYP.)

SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

SHEET NO.

SB6

279

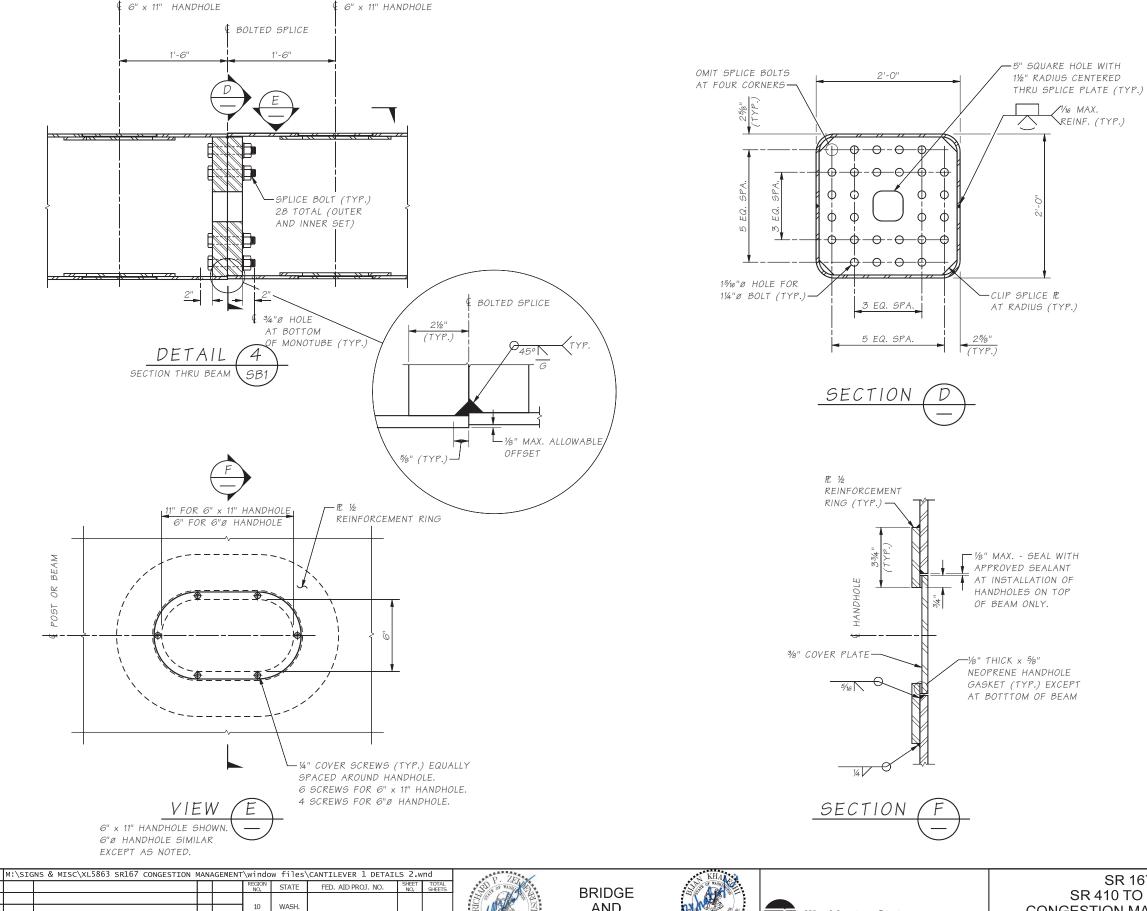
357

CANTILEVER No. 1 STRUCTURAL DETAILS 1 OF 2

SR 167 FILE NO.

cosign

Ved Dec 09 15:19:58 2020



Supervisor

Checked By

Detailed By

Bridge Projects Engr.

Prelim. Plan By

Designed By

Architect/Specialist

Bridge Design Engr. Khaleghi, B

Zeldenrust, RP

Brain, A

Evans, A

Barkley, J

08/20

11/20

08/20

DATE

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JOB NUMBER 18C526

CONTRACT NO.

AND STRUCTURES OFFICE





SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

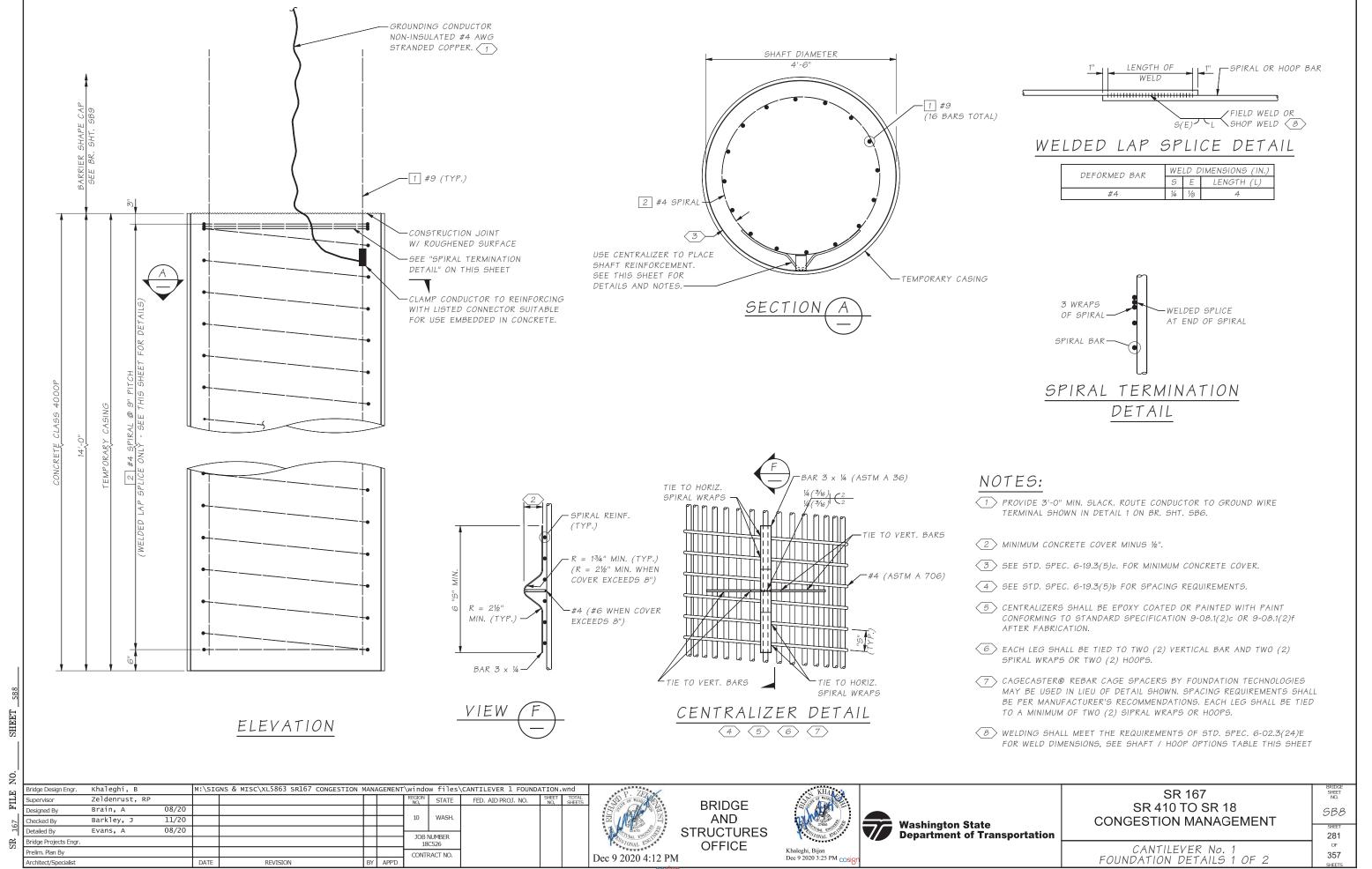
SB7

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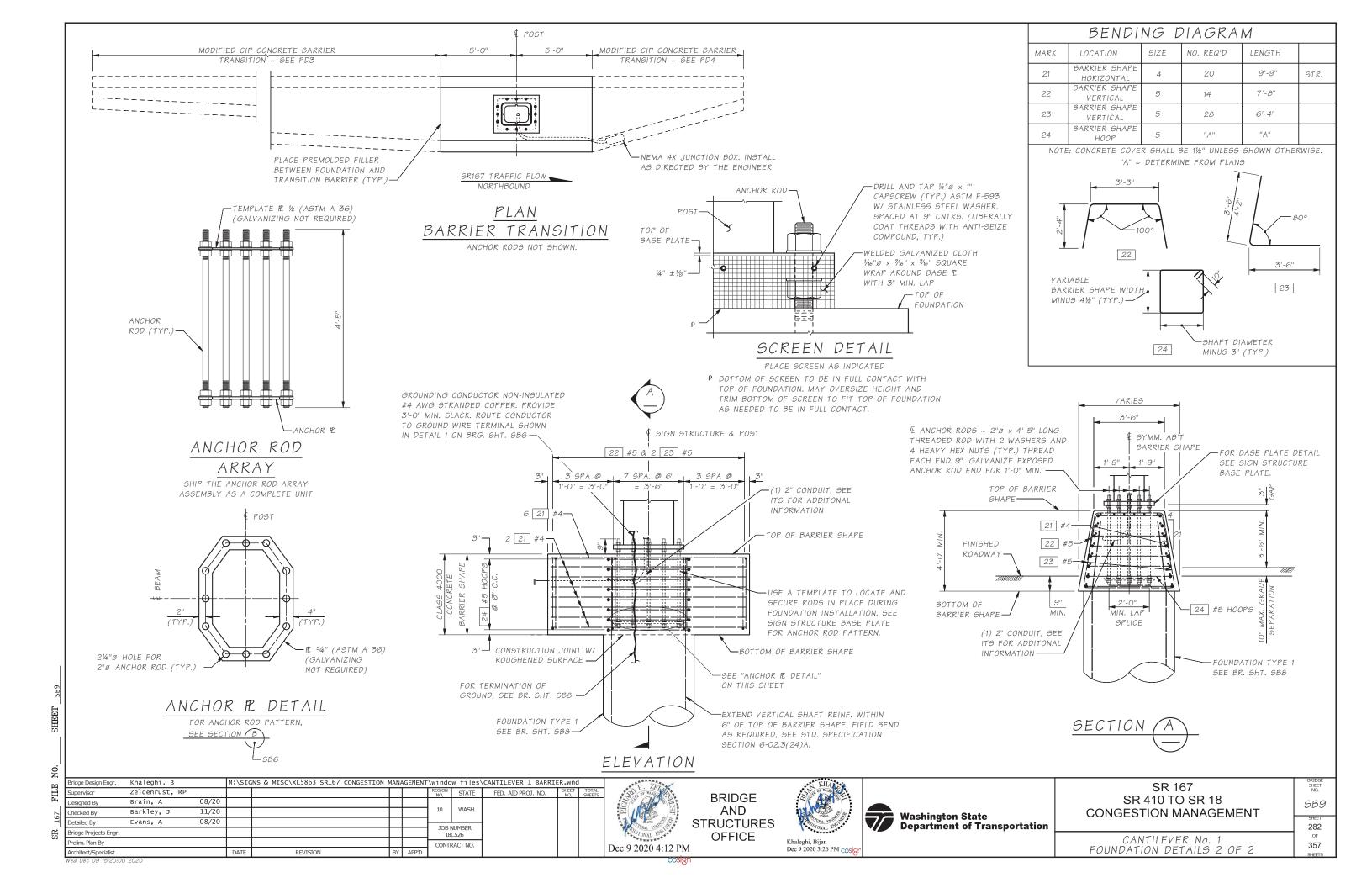
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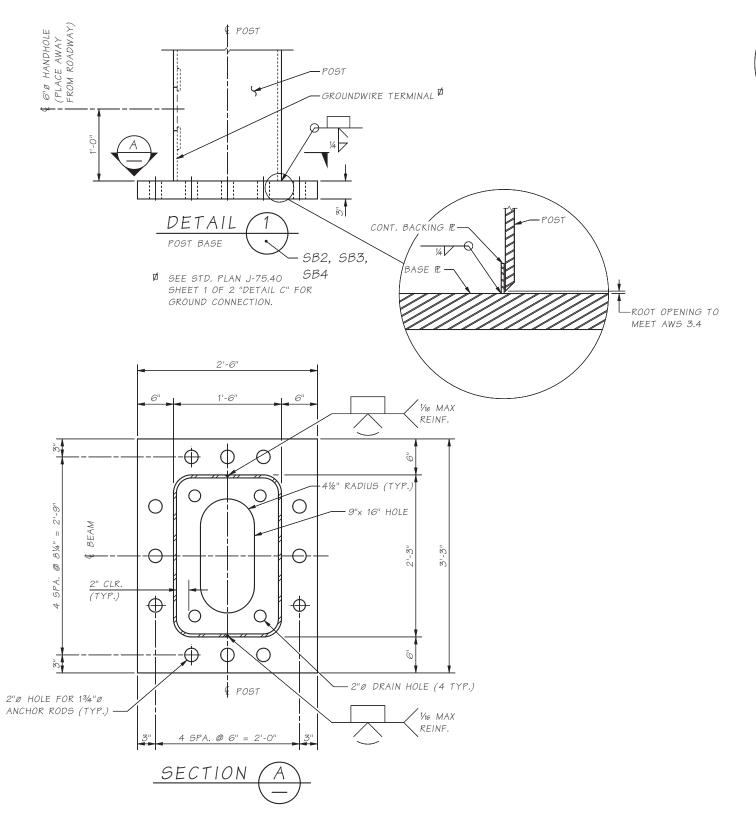
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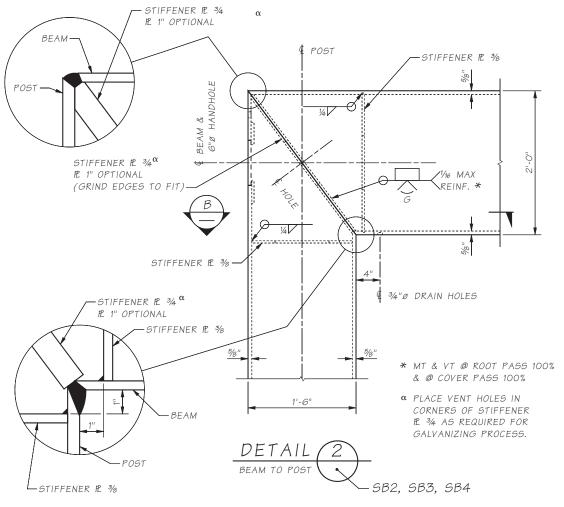
STRUCTURAL DETAILS 2 OF 2

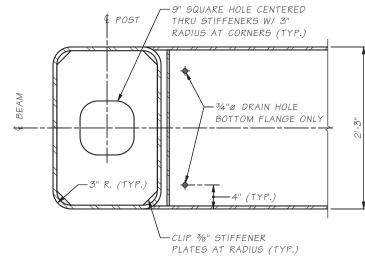


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SECTION DIAGONAL STIFFENER NOT SHOWN

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	Supervisor	Zeldenrust, RP							П		REGION NO.	STATE	FED. AID PRO	J. NO.	SHEET NO.	TOTAL SHEETS	
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	Checked By	Liu, S	12/20						П		10	WASH.					
ᆌ	Detailed By	Uhde, T	09/20						П		TODA	II IMPED					
4	Bridge Projects Engr.											NUMBER C526					
2	Prelim. Plan By	·	·					•	Τ		CONTR	RACT NO.					١,



BRIDGE AND STRUCTURES OFFICE





SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

SHEET NO.

SB10

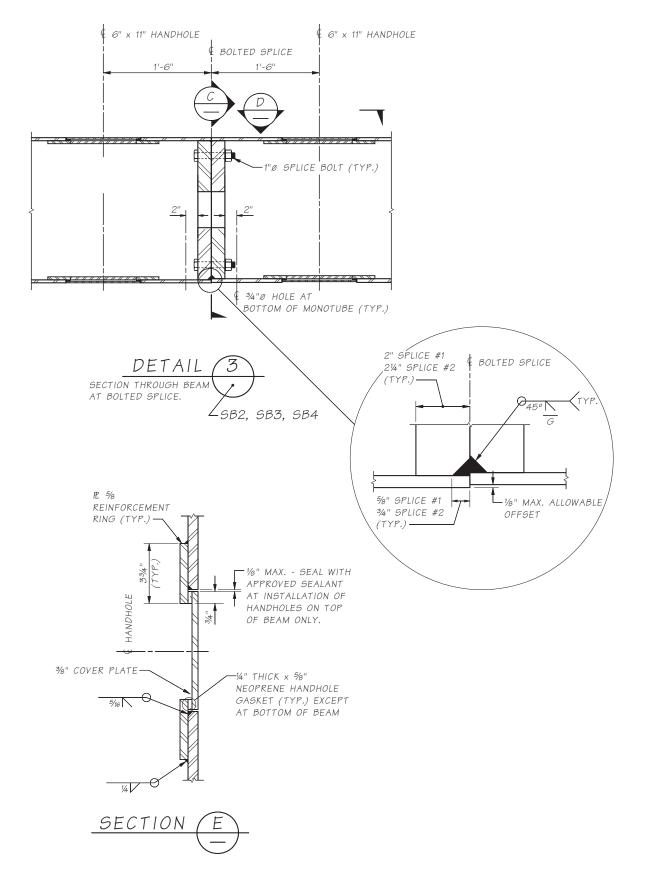
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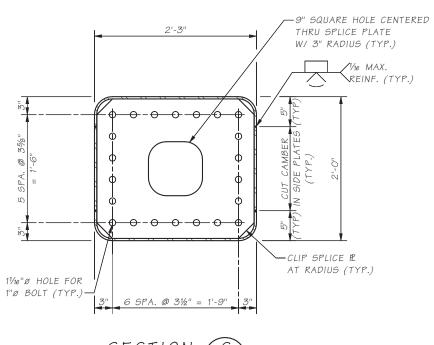
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SIGN BRIDGE

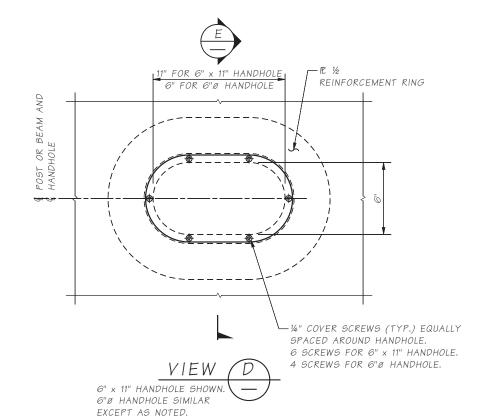
STRUCTURAL DETAILS 1 OF 2

DATE BY APP'D REVISION





SECTION BOLTED SPLICE #1 AND #2



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Bridge Projects Engr.								JOB NUMBER 18C526				
Prelim. Plan By								CONTE	RACT NO.			
Architect/Specialist			DATE	REVISION		BY	APP'D	]				

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BRIDGE AND STRUCTURES OFFICE



Washington State Department of Transportation	Washington State Department of Transportation	
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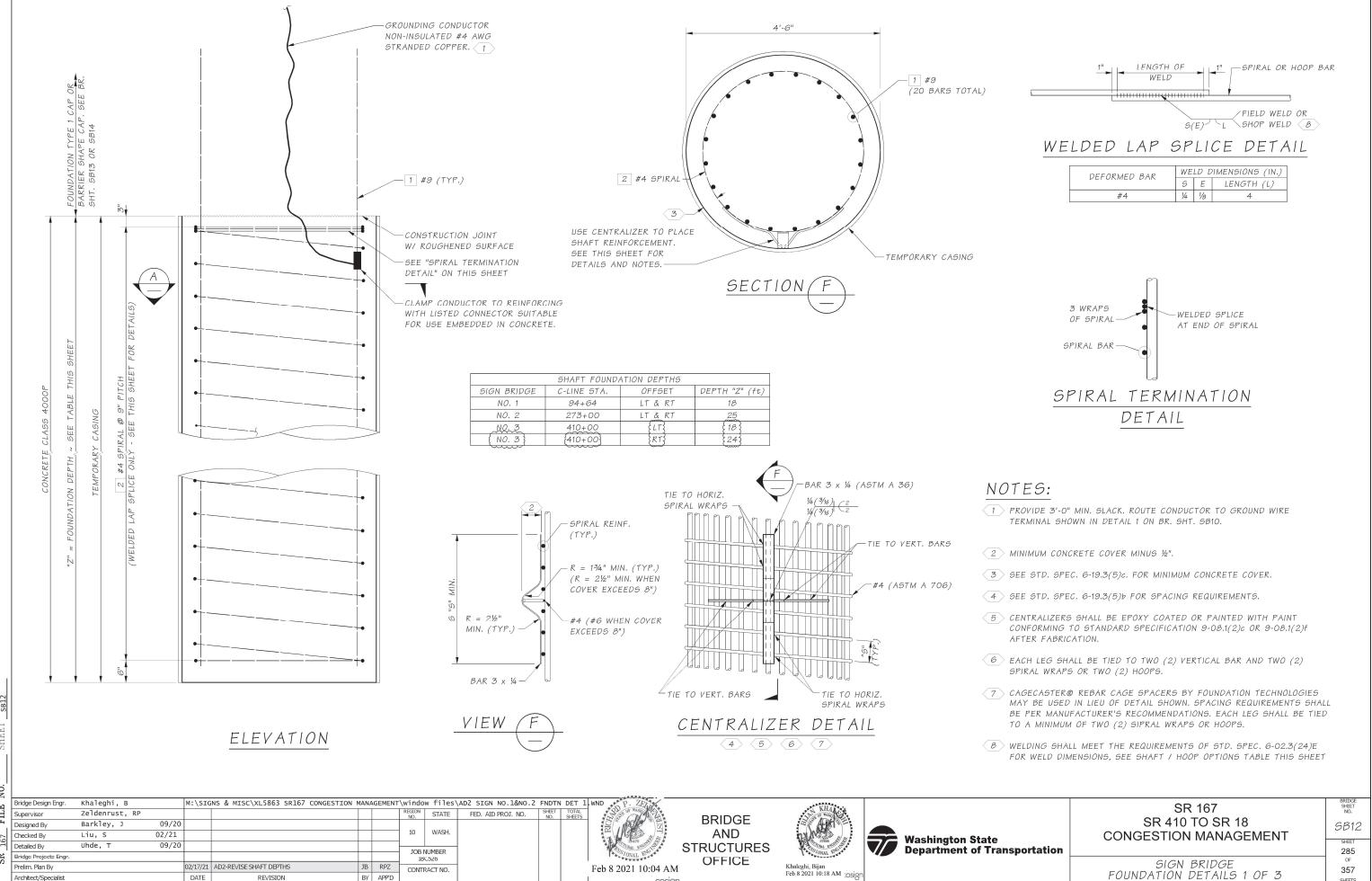
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SR 410 TO SR 18	
CONGESTION MANAGEMENT	

SB11

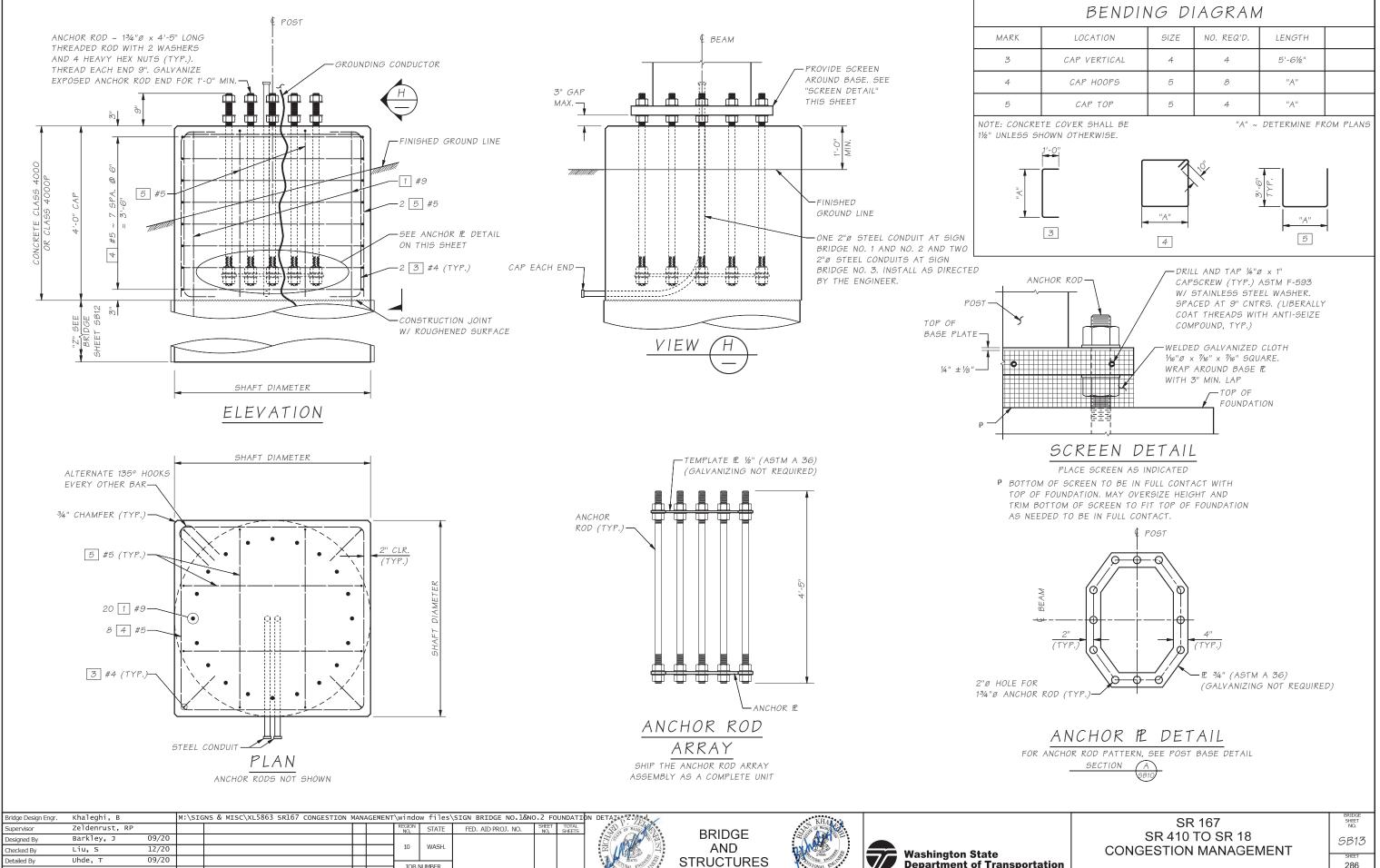
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SIGN BRIDGE STRUCTURAL DETAILS 2 OF 2



Architect/Specialist



Bridge Projects Engr

Architect/Specialist

DATE

Prelim. Plan By

JOB NUMBER 18C526

CONTRACT NO.

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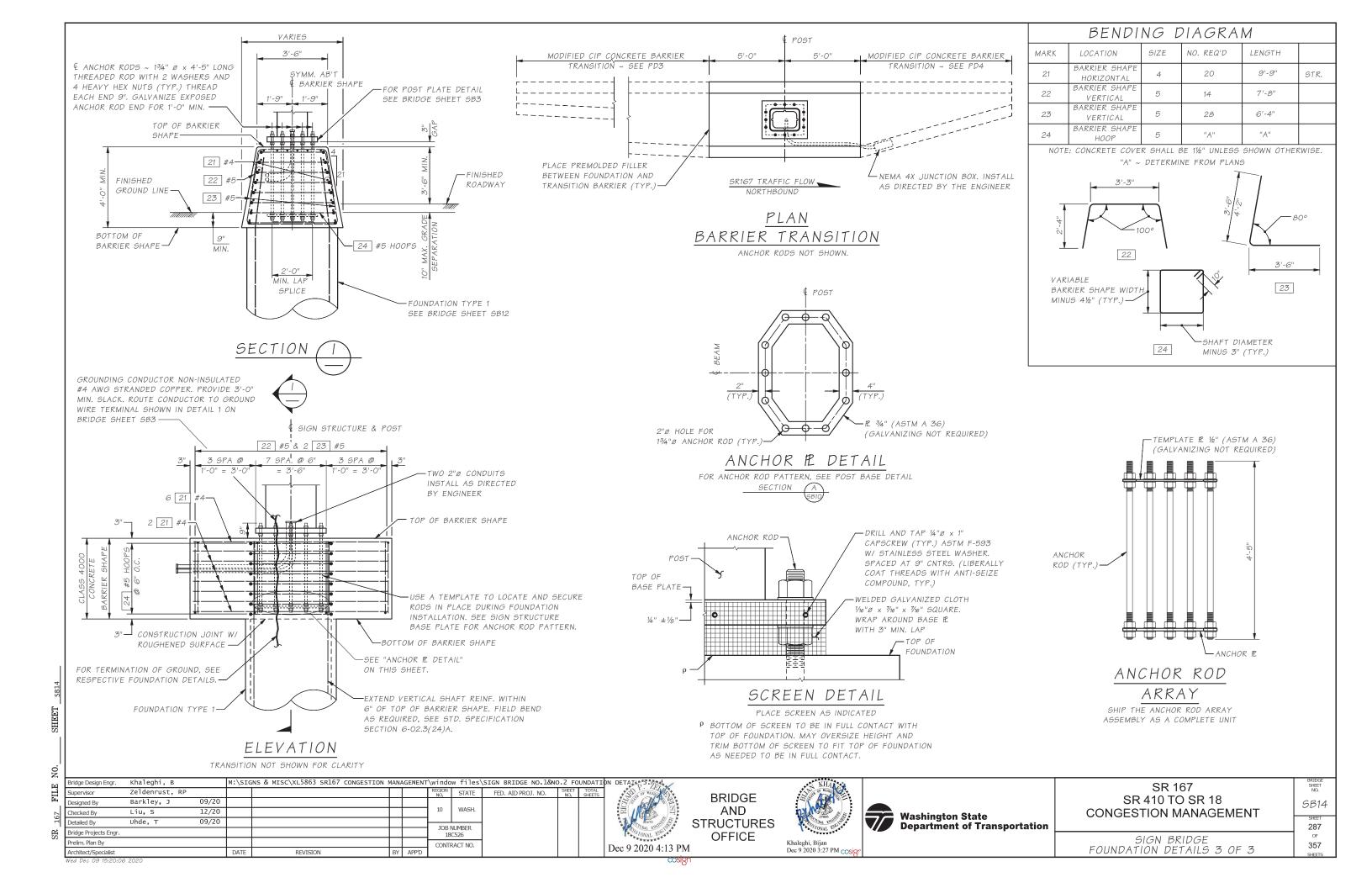
**Department of Transportation** 

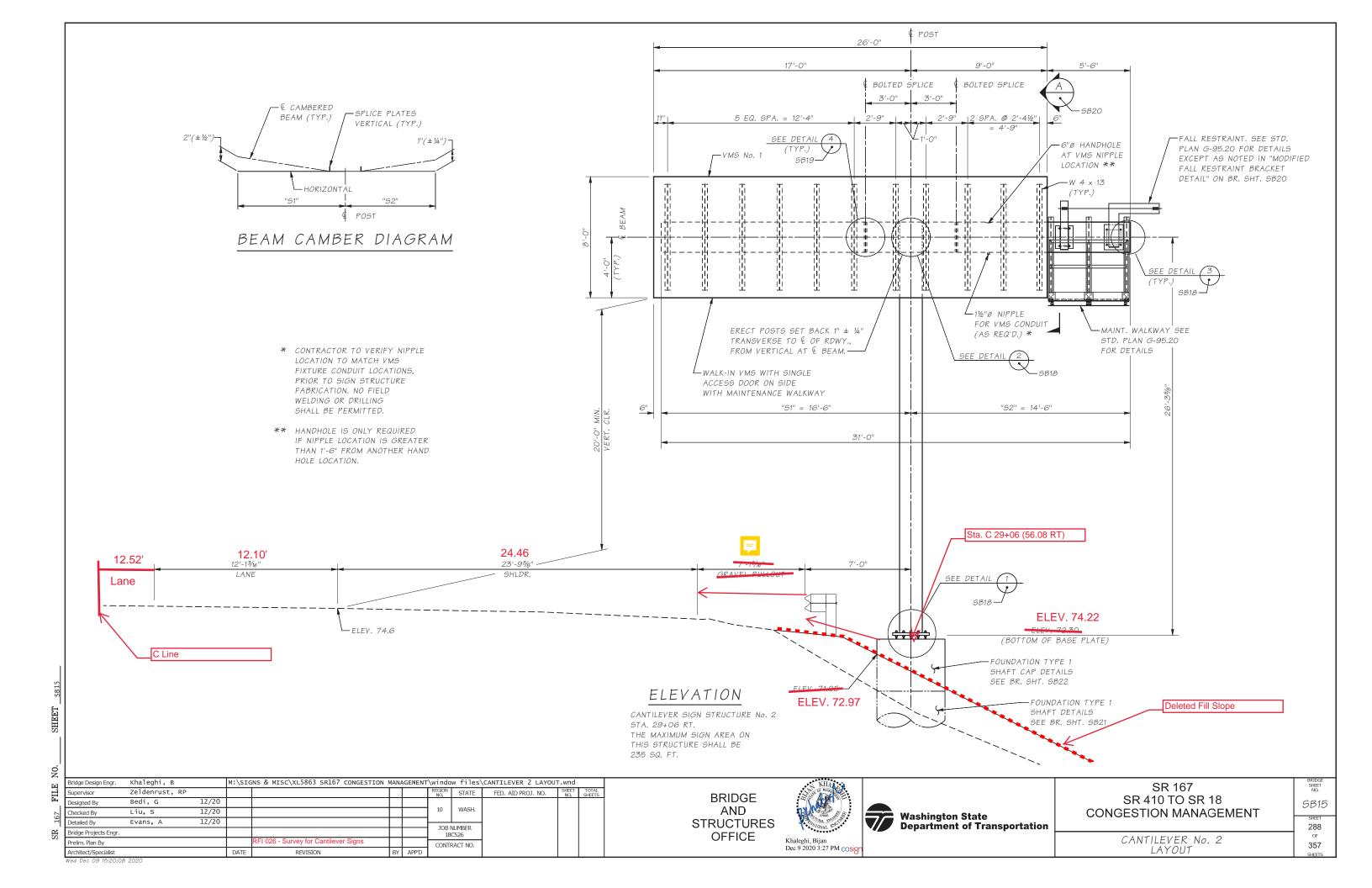
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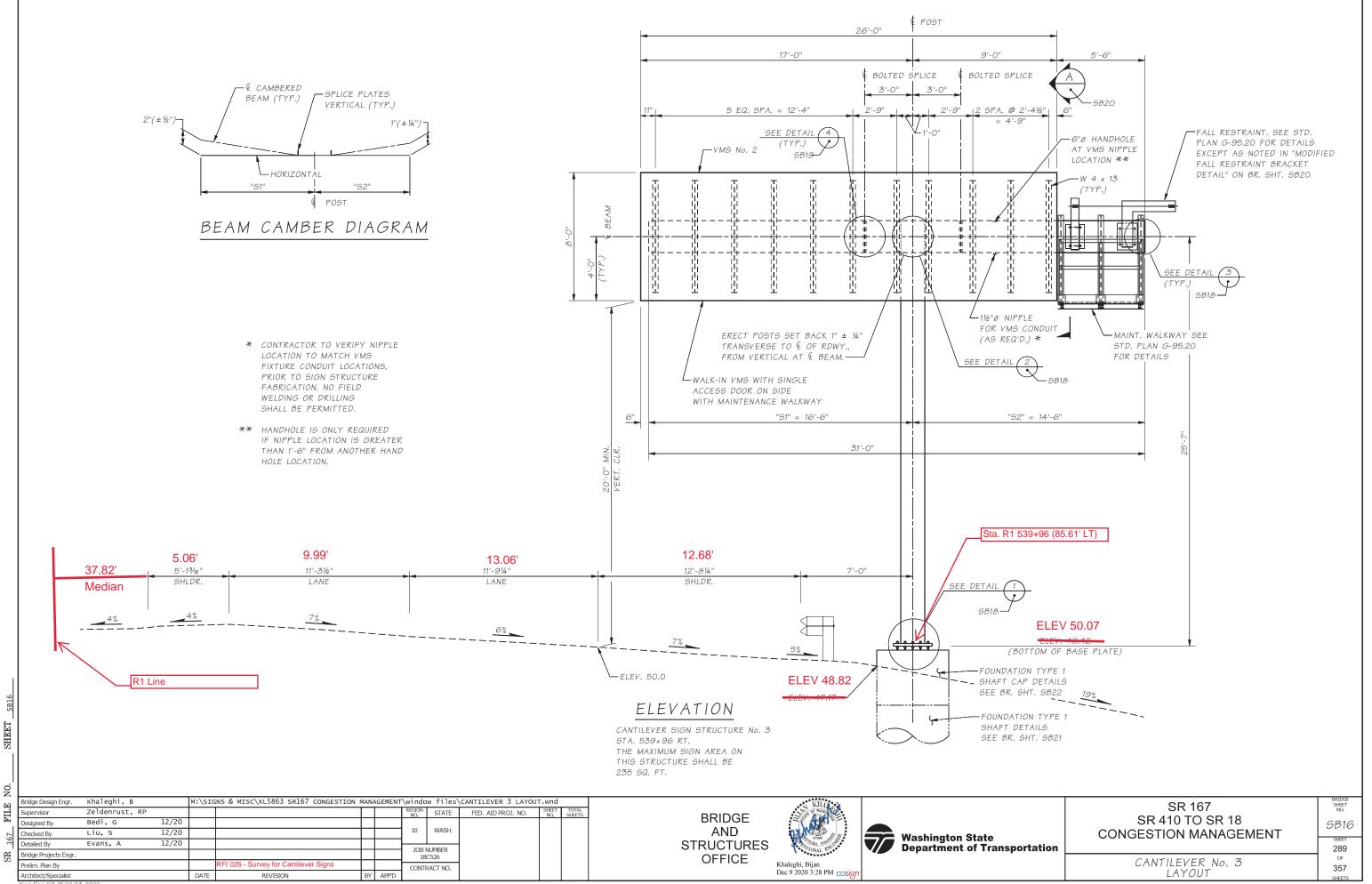
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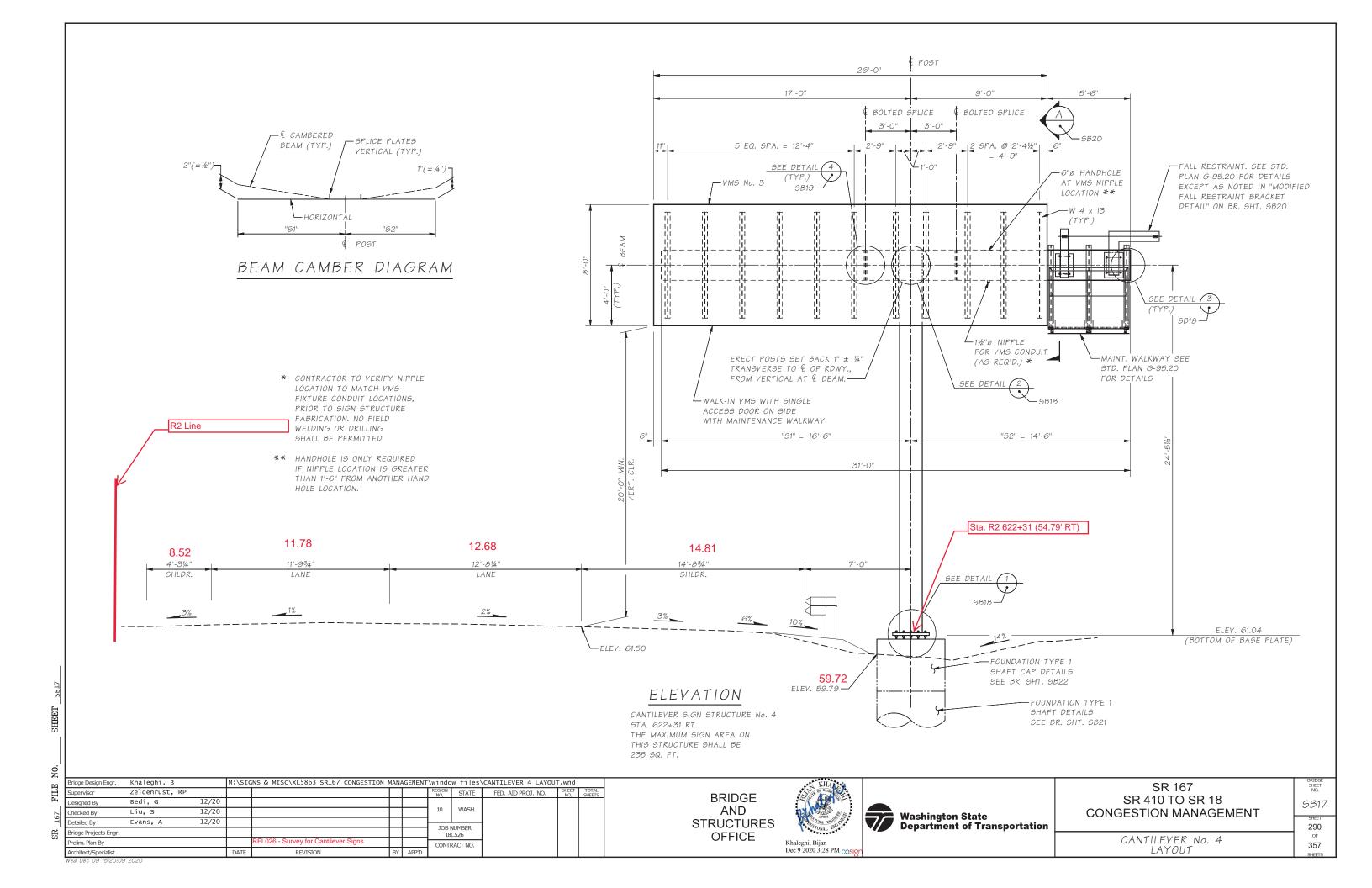
SIGN BRIDGE

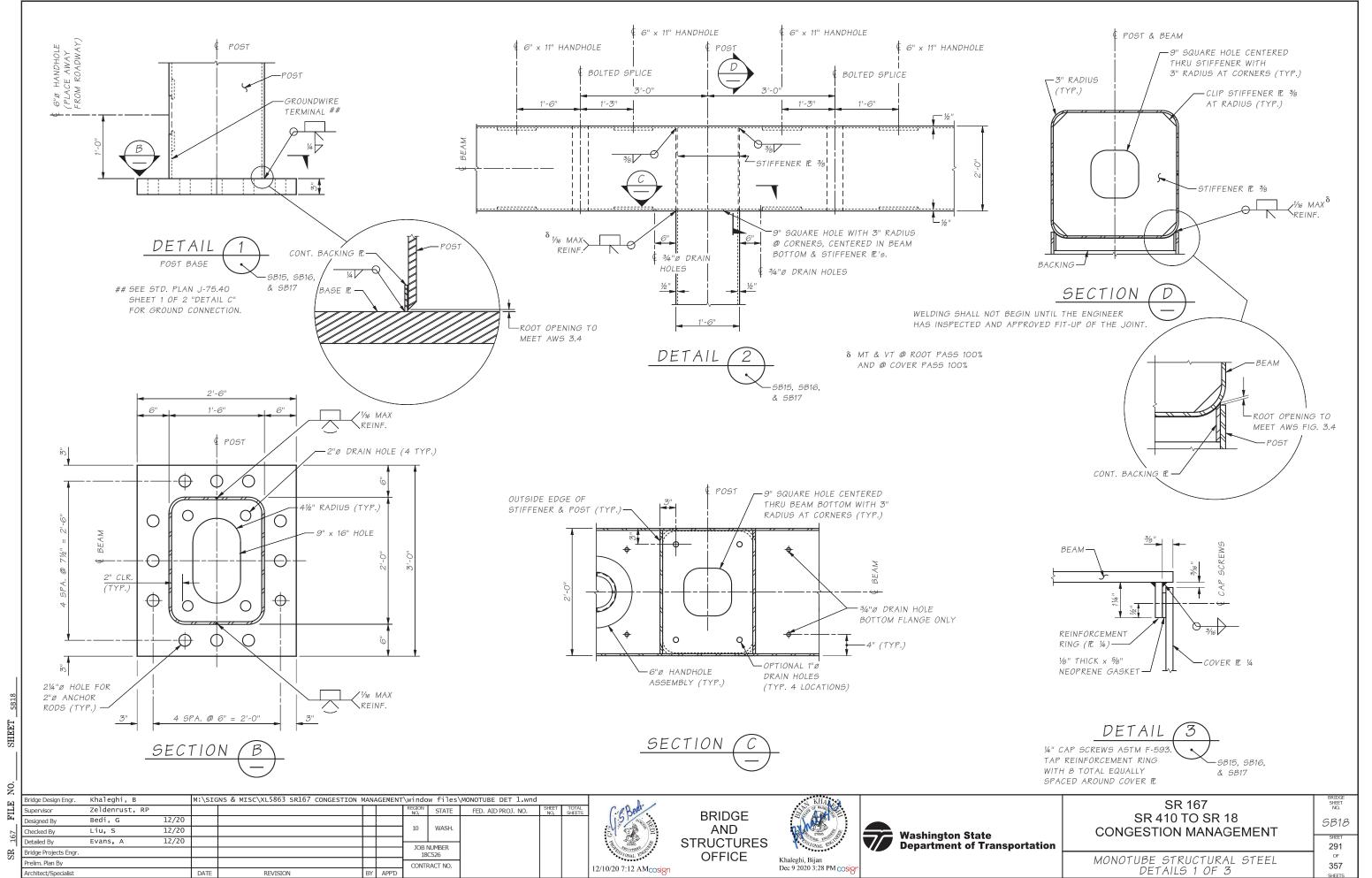
FOUNDATION DETAILS 2 OF 3



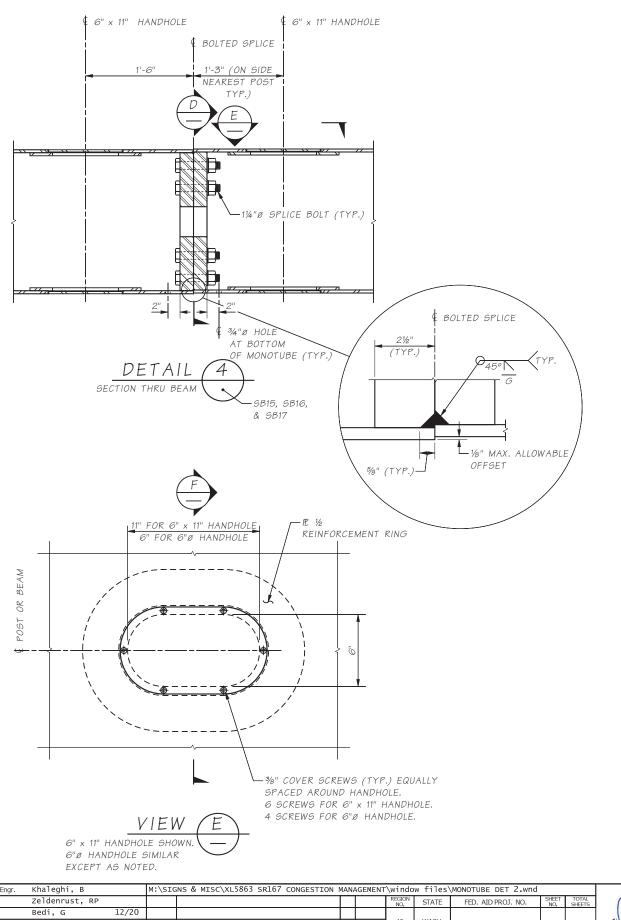


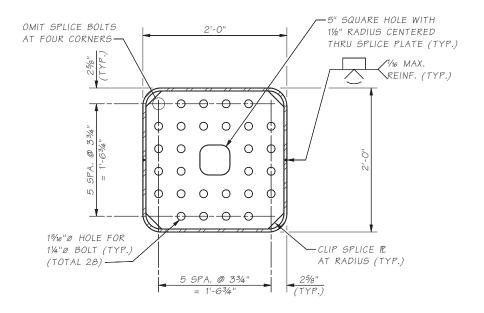




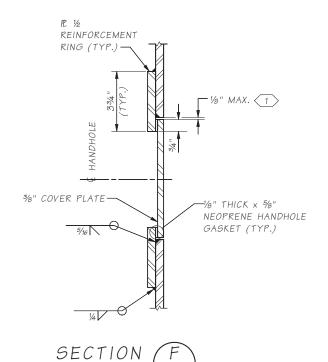


Wed Dec 09 15:20:11 202









## NOTES:

1 SEAL WITH APPROVED SEALANT AT INSTALLATION OF HANDHOLES ON TOP OF BEAM ONLY.

2														
a	Bridge Design Engr.	Khaleghi, B		M:\SIG	NS & MISC\XL5863 SR167 C	ONGESTION !	MANA	GEMENT	\windo	w files\	MONOTUBE DET 2.wnd			Г
3	Supervisor	Zeldenrust, RP					П		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
ч.	Designed By	Bedi, G	12/20				П							
	Checked By	Liu, S	12/20				П		10	WASH.				
ĭ	Detailed By	Evans, A	12/20				П		TODA	II IMDED				
Š	Bridge Projects Engr.									NUMBER C526				
2	Prelim. Plan By		·				ГΠ		CONTE	RACT NO.				
	Architect/Specialist			DATE	REVISION		BY	APP'D						12



BRIDGE AND STRUCTURES OFFICE



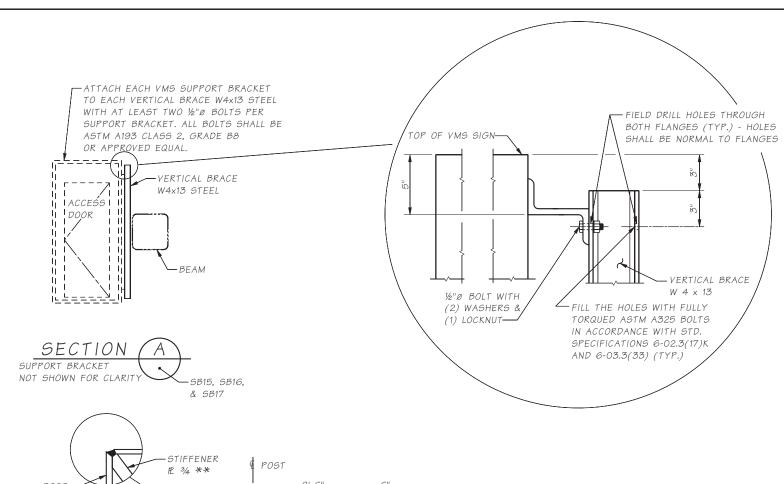


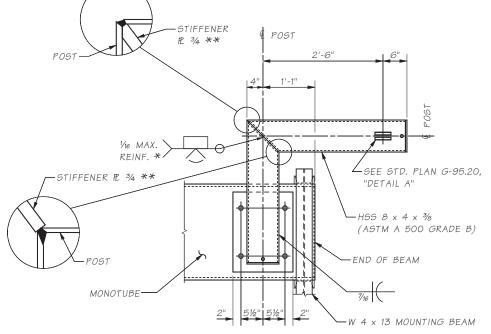
SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

MONOTUBE STRUCTURAL STEEL DETAILS 2 OF 3

292 357

SB19





- DRILL AND TAP 14"Ø x 1" ANCHOR ROD -CAPSCREW (TYP.) ASTM F-593 W/ STAINLESS STEEL WASHER. POST-SPACED AT 9" O/C (LIBERALLY TOP OF COAT THREADS WITH ANTI-SEIZE COMPOUND, TYP.) BASE PLATE -WELDED GALVANIZED CLOTH 1/16"Ø x 7/16" x 7/16" SQUARE. WRAP AROUND BASE PL ¼" ±1/8"— WITH 3" MIN. LAP TOP OF FOUNDATION SCREEN DETAIL

PLACE SCREEN AS INDICATED  $\beta$  bottom of screen to be in full contact with TOP OF FOUNDATION. MAY OVERSIZE HEIGHT AND TRIM BOTTOM OF SCREEN TO FIT TOP OF FOUNDATION AS NEEDED TO BE IN FULL CONTACT.

## MODIFIED FALL RESTRAINT BRACKET DETAIL

#### NOTE:

\* MT & VT @ ROOT PASS 100% & @ COVER PASS 100%

1		D.	ETAIL5	SAME AS SID. PLAN G-95.20 E	XCEr	1 AS						
		0	N EXIS	SEE "FALL RESTRAINT BRACKET TING MONOTUBE SIGN BRIDGE" : TE & BOLTING INFORMATION.	**	* DRILL 1½"Ø HOLE IN CENTER OF STIFFENER.						
Bridge Design Engr.	Khaleghi, B		M:\SIG	SNS & MISC\XL5863 SR167 CONGESTION	N MAN	AGEMENT	Γ\windα	ow files\	MONOTUBE DET 3.wnc	1		Т
Supervisor	Zeldenrust, RP						REGION NO	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	1
Designed By	Bedi, G	12/20								1		1
Checked By	Liu, S	12/20					10	WASH.				
Detailed By	Evans, A	12/20			$\neg \vdash$		<del></del>					
Bridge Projects Engr.					$\top$			NUMBER BC526				
Prelim. Plan By					$\top$		CONT	RACT NO.				
Architect/Specialist			DATE	REVISION	BY	APP'D	1	101011101				1
Wed Dec 09 15:20:12	2020								1			_



**BRIDGE** AND **STRUCTURES** OFFICE





SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT

MONOTUBE STRUCTURAL STEEL DETAILS 3 OF 3

SB20

-BASE R - NEMA 3R TERMINAL CABINET

STAINLESS

STEEL NEMA 3R TERMINAL CABINET

BUSHING

1'-4"(H) x 1'-0"(W) x 8"(D)

STAINLESS STEEL NEMA

3R TERMINAL CABINET

-3%"Ø x 1½" BOLT & WASHER (4 TYP.)

WASHER FOR SPACER (TYP.)

-14" GAP W/ 14" THICK NYLON BUSHING

MONOTUBE:

SEE STD. PLAN J-75.40

CONNECTOR DETAIL.

2"Ø TAPPED HOLE

W/ THREADED NIPPLE -

END BUSHING (TYP.)-

3/8" LOCK WASHER &

LOCK NUT (4 TYP.)

МОПОТИВЕ —

"SECTION B" SHEET 1 OF 2 FOR

6"Ø HANDHOLE CENTERED OVER NEMA

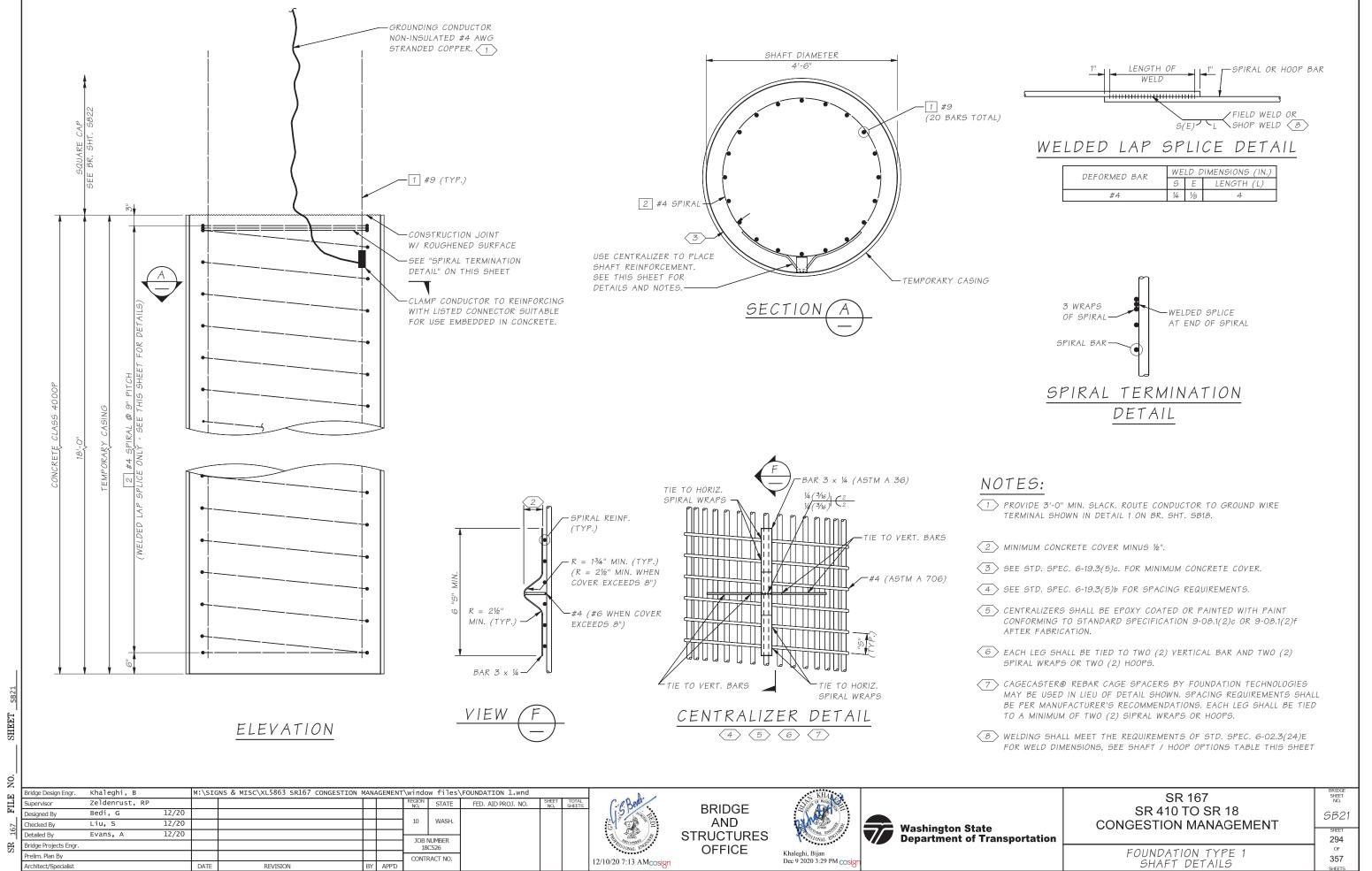
TERMINAL CABINET  $\alpha$ 

NEMA 3R TERMINAL CABINET DETAIL

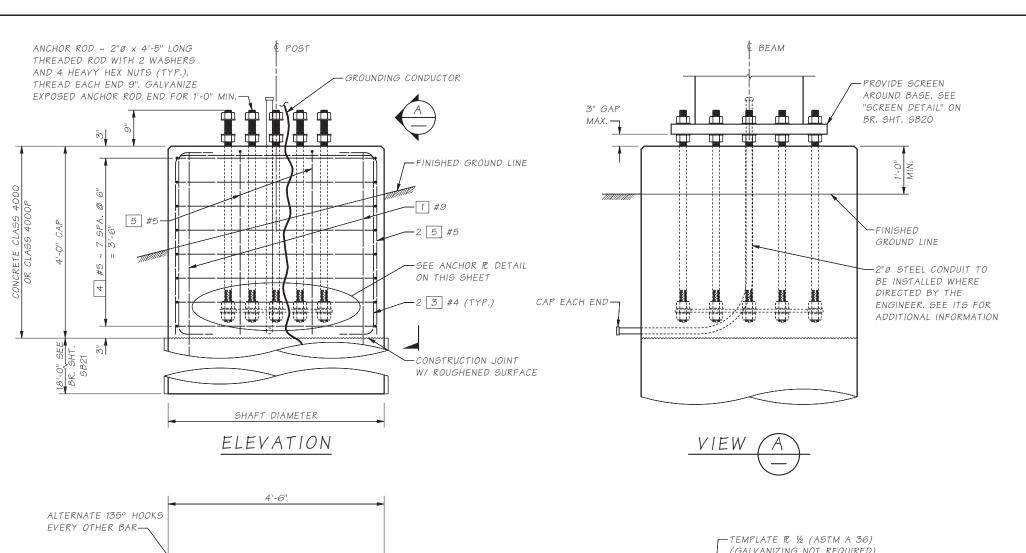
 $\alpha$  IF NO OTHER HANDHOLE IS WITHIN 1'-6" OF CABINET

PULLING GRIP OR TWO SCREW

293 357



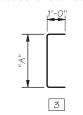
Wed Dec 09 15:20:13 202

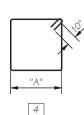


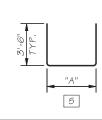
	BENDING DIAGRAM													
MARK	LOCATION	SIZE	NO. REQ'D.	LENGTH										
3	CAP VERTICAL	4	4	5'-6½"										
4	CAP HOOPS	5	8	"A"										
5	CAP TOP	5	4	"A"										

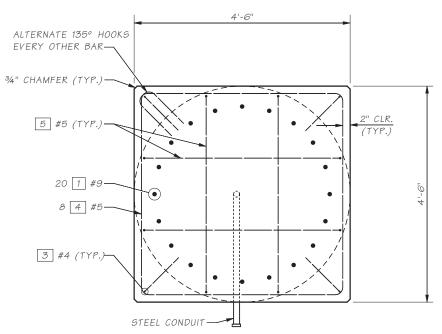
NOTE: CONCRETE COVER SHALL BE 11/2" UNLESS SHOWN OTHERWISE.

"A" ~ DETERMINE FROM PLANS









ANCHOR ROD (TYP.)

ANCHOR ROD (TYP.)

ANCHOR ROD ANCHOR ROD

ARRAY

SHIP THE ANCHOR ROD ARRAY ASSEMBLY AS A COMPLETE UNIT

POST
BE AM
2" 4"
(TYP.)
214"Ø HOLE FOR 2"Ø ANCHOR ROD (TYP.)

## ANCHOR PE DETAIL

FOR ANCHOR ROD PATTERN,
SEE SECTION B
SB18

Bridge Design Engr.	Khaleghi, B		M:\SIG	SNS & MISC\XL5863 SR167 CONGESTION	MANA	AGEMENT	\windo	w files	FOUNDATION 2.wnd		
Supervisor	Zeldenrust, RP				Т		REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Bedi, G	12/20									
Checked By	Liu, S	12/20			Т		10	WASH.			1
Detailed By	Evans, A	12/20			Т						1
Bridge Projects Engr.								NUMBER IC526			1
Prelim. Plan By					T		CONT	RACT NO.			1
Architect/Specialist			DATE	REVISION	BY	APP'D	]				1

ANCHOR RODS NOT SHOWN



BRIDGE AND STRUCTURES OFFICE





SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

> FOUNDATION TYPE 1 SHAFT CAP DETAILS

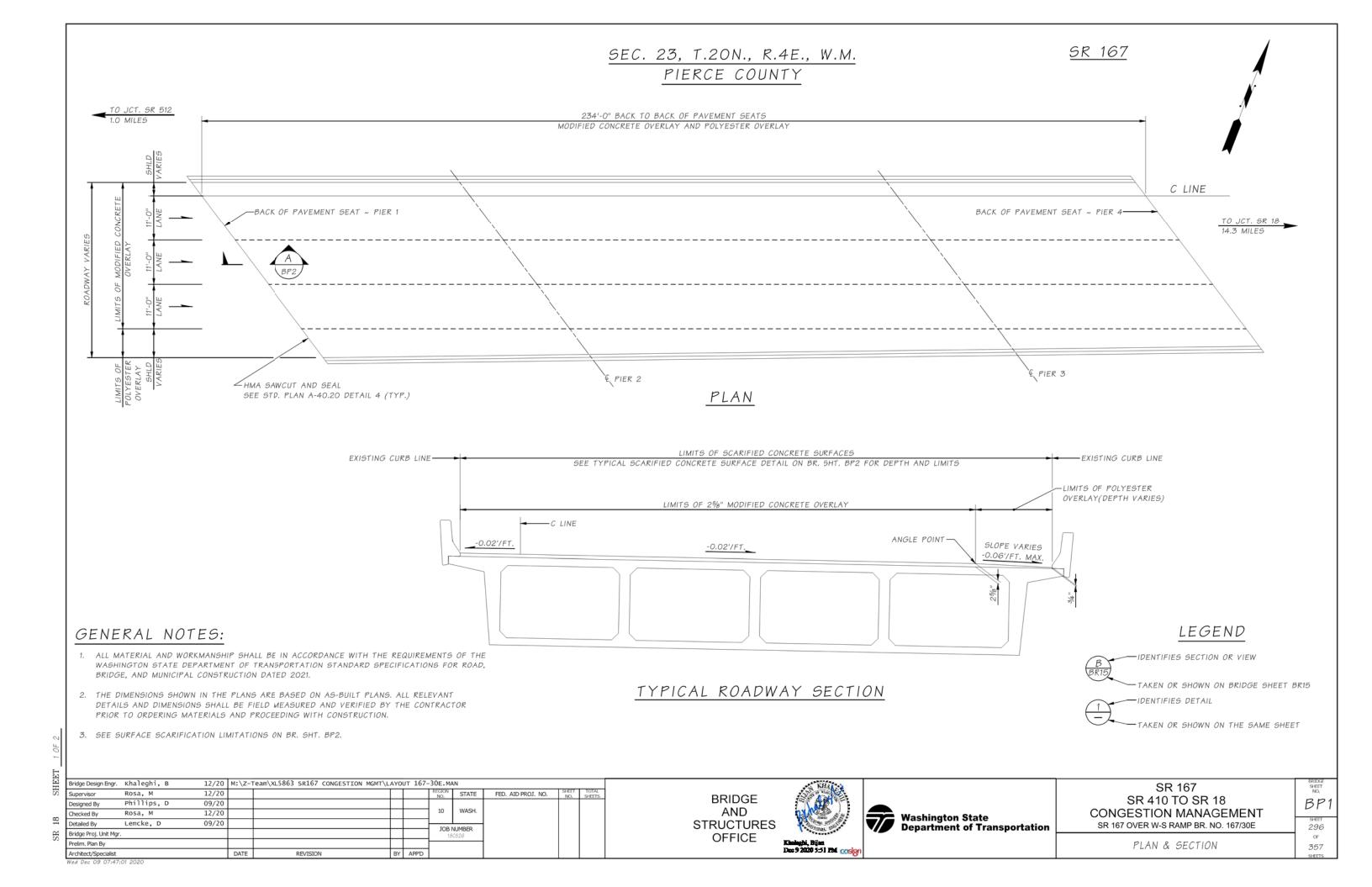
SHEET 295

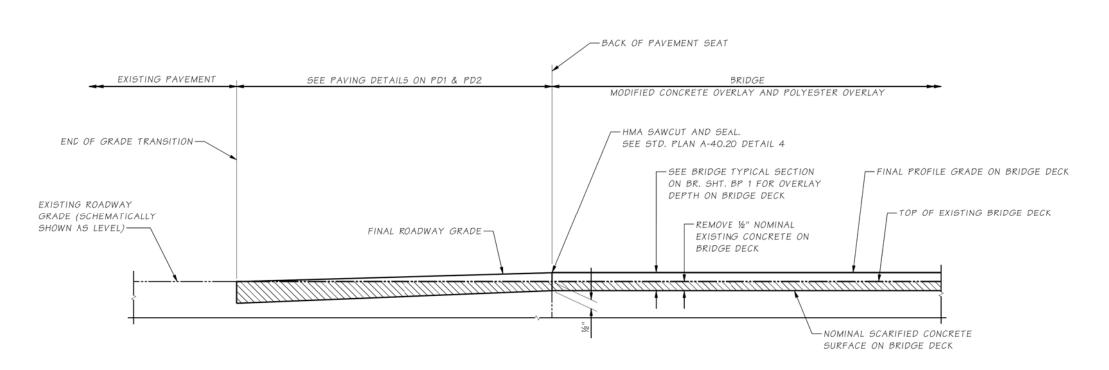
357

Wed Dec 09 15:20:14 2020

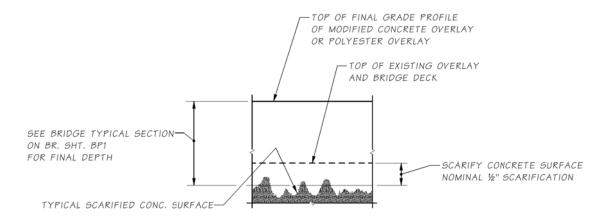
E NO. SHEET

167 FILE









## TYPICAL SCARIFIED CONCRETE SURFACE DETAIL ON BRIDGE DECK

7													
~	Bridge Design Engr.	Khaleghi, B	12/20	M:\Z-1	Team\XL5863 SR167 CONGESTION MGMT\1	L67-3	30E RDW	Y TRAN	& SCAR	.MAN			
5	Supervisor	Rosa, M	12/20					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	1
っ.	Designed By	Phillips, D	09/20										
.ا	Checked By	Rosa, M	12/20			П		10	WASH.				
`'	Detailed By	Lemcke, D	09/20					TOD	II II ADED				
ž.	Bridge Projects Engr.								NUMBER 0526				
	Prelim. Plan By												
	Architect/Specialist			DATE	REVISION	BY	APP'D						1



BRIDGE AND STRUCTURES OFFICE



SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT SR 167 OVER W-S RAMP BR. NO. 167/30E

GRADE TRANSITION & SCARIFICATION DETAILS

BRIDGE
SHEET
NO.

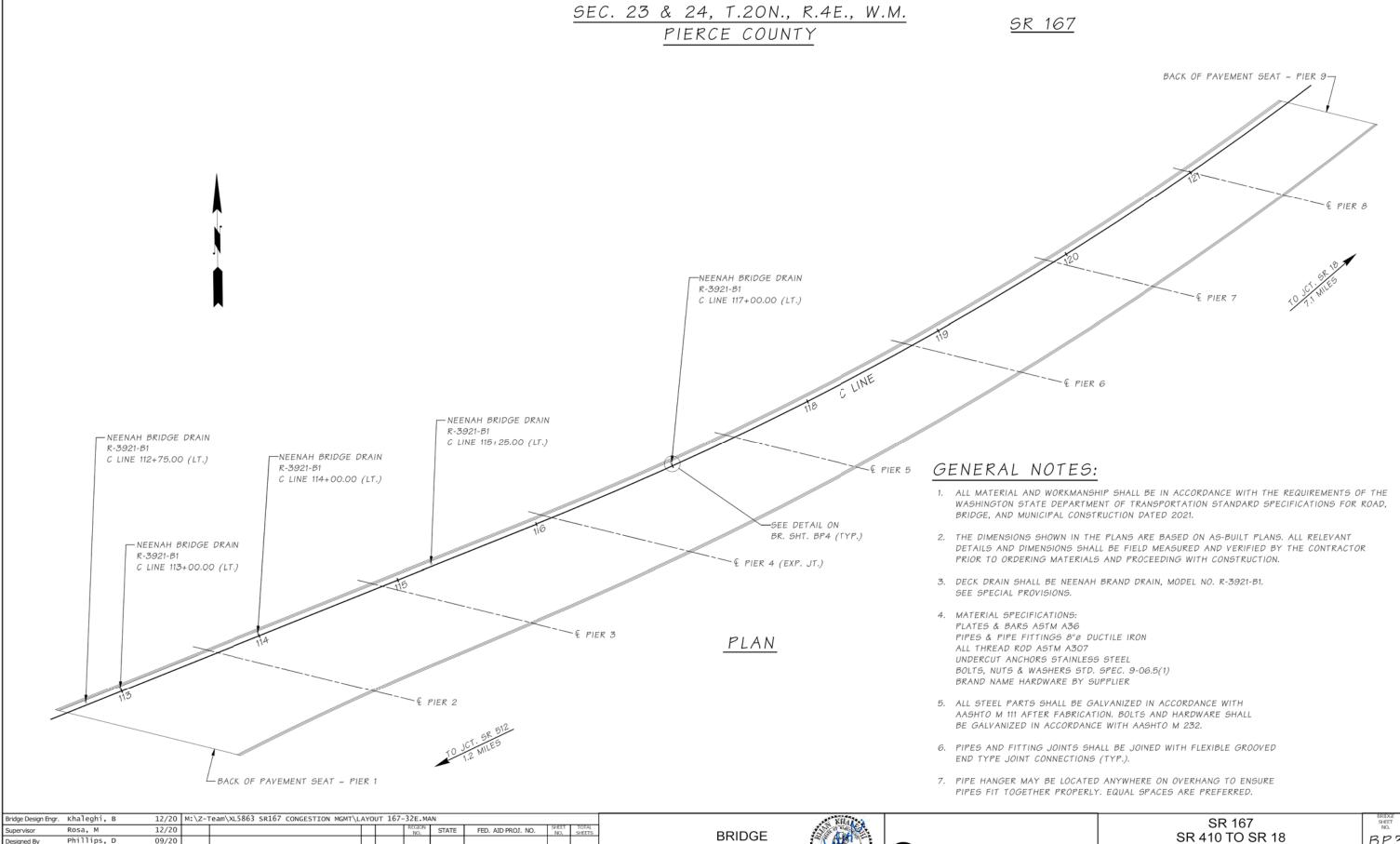
BP2

SHEET
297

OF 357 SHEETS

5 JOB NO. 7000 SHEET 10F

SR = 5 JOB



AND **STRUCTURES** OFFICE

JOB NUMBER

BY APP'D





SR 410 TO SR 18 **CONGESTION MANAGEMENT** SR 167 OVER VALLEY AVE & RR. BR. NO. 167/32E

DRAIN LAYOUT

BP3 298 357

Architect/Specialist

Bridge Proj. Unit Mgr.

Rosa, M

Lemcke, D

12/20

09/20

DATE

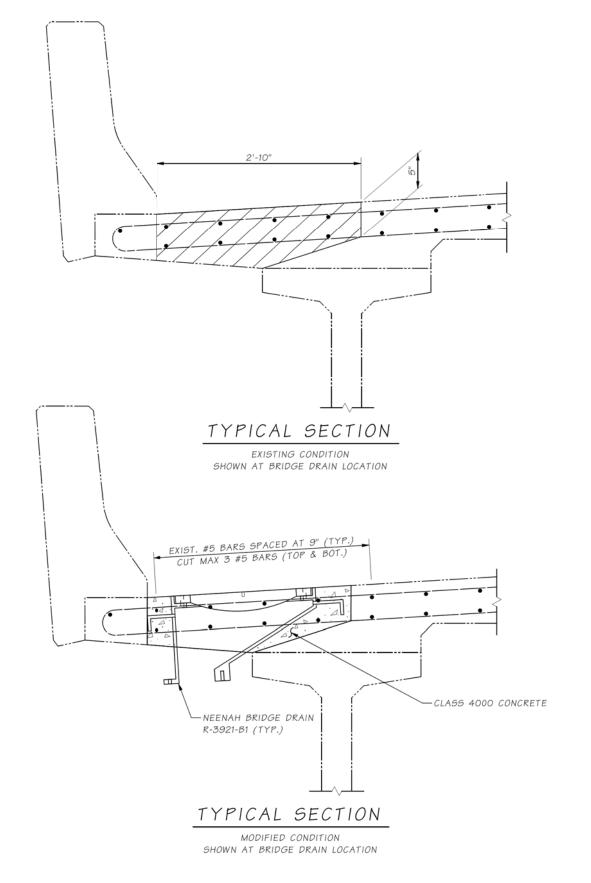
REVISION

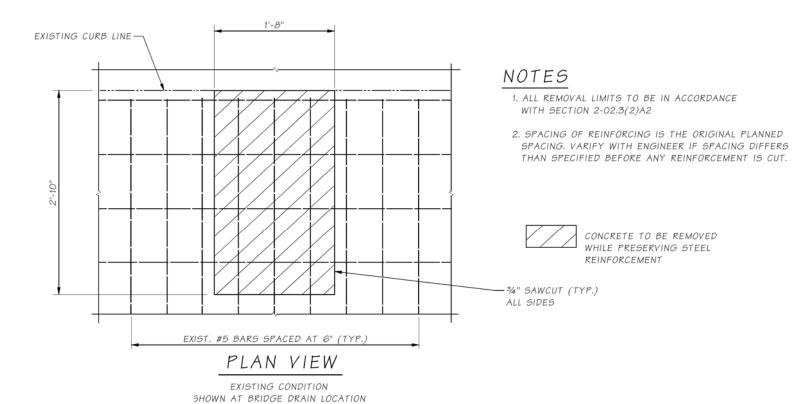
esigned By

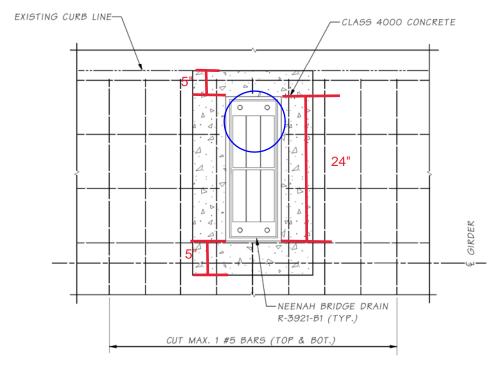
Checked By

Detailed By

relim. Plan By







PLAN VIEW

MODIFIED CONDITION SHOWN AT BRIDGE DRAIN LOCATION

찚													
SHEET	Bridge Design Engr.	Khaleghi, B	12/20	M:\Z-T	ream\xL5863 SR167 CONGESTION MGMT\	TYP:	SEC 167	'-32E.№	1AN				
SI	Supervisor	Rosa, M	12/20					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
	Designed By	Phillips, D	09/20										
_	Checked By	Rosa, M	12/20					10	WASH.				
18	Detailed By	Lemcke, D	09/20					TOD	II II ADED				
SR	Bridge Proj. Unit Mgr.								NUMBER 0526				
0,	Prelim. Plan By												
	Architect/Specialist	·		DATE	REVISION	BY	APP'D						1



**BRIDGE** AND **STRUCTURES** OFFICE





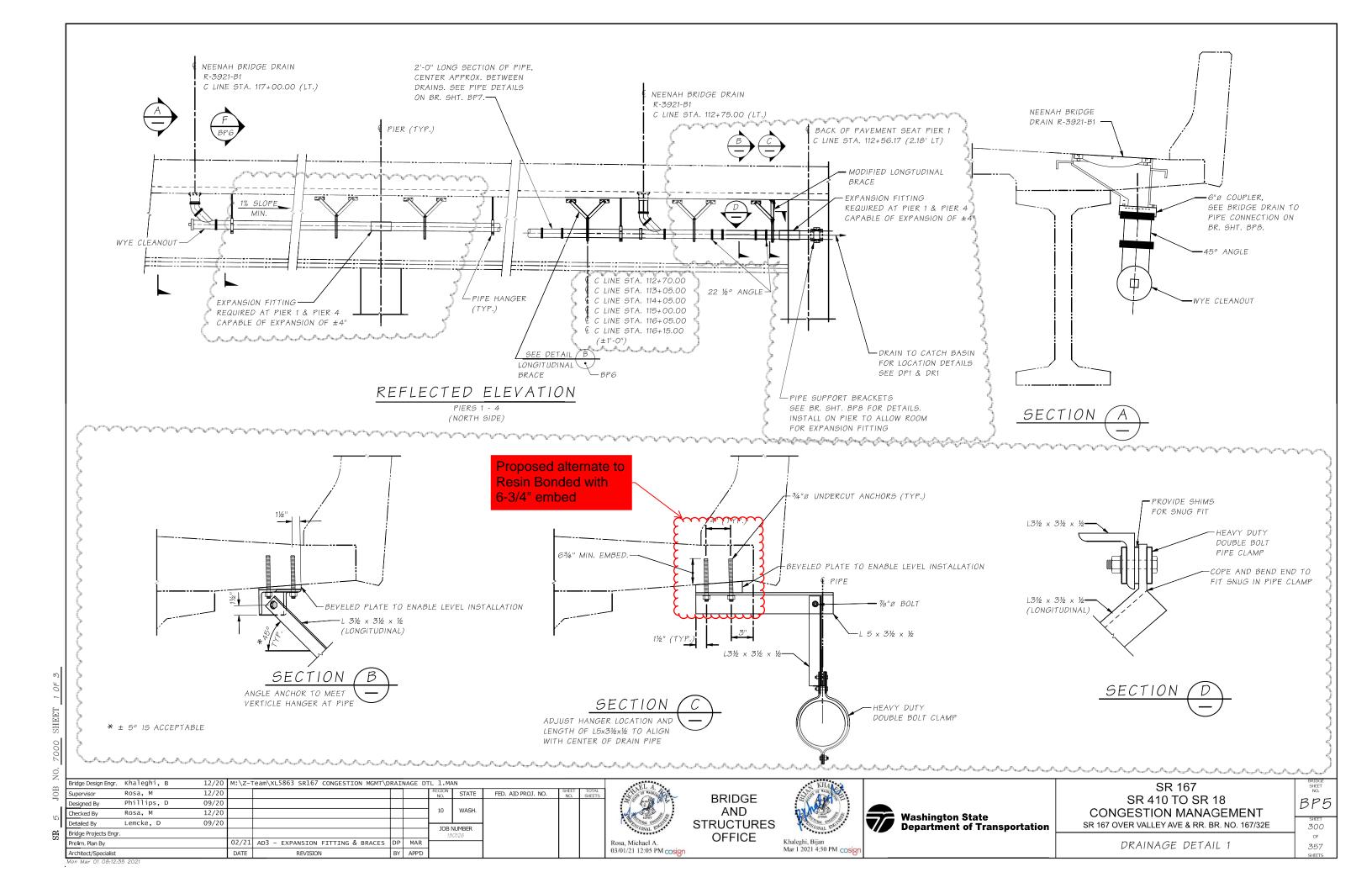
SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** SR 167 OVER VALLEY AVE & RR. BR. NO. 167/32E

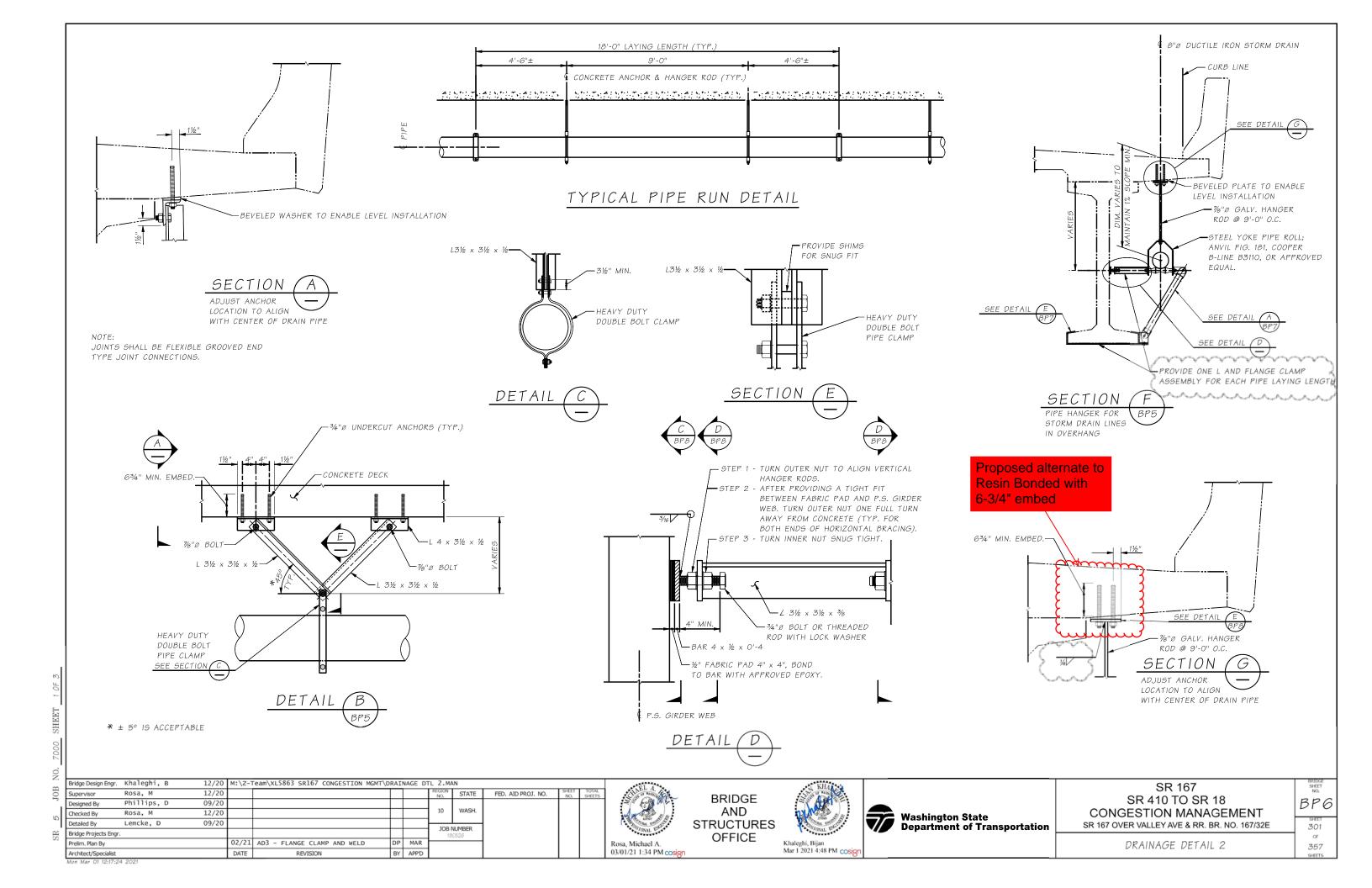
BP4 299

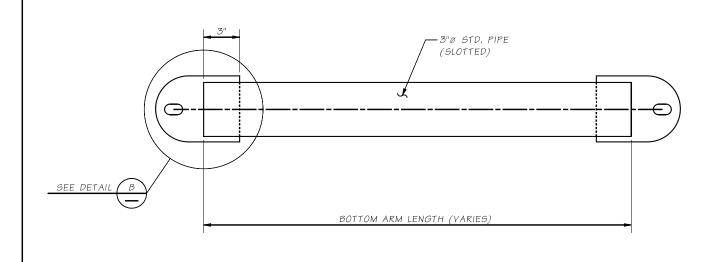
357

Wed Dec 09 07:30:37 2020

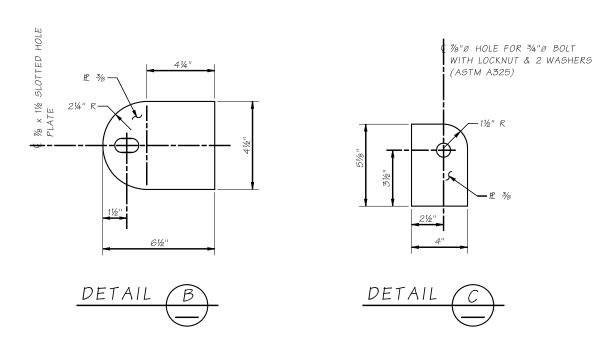
NEENAH DRAIN INSTALL

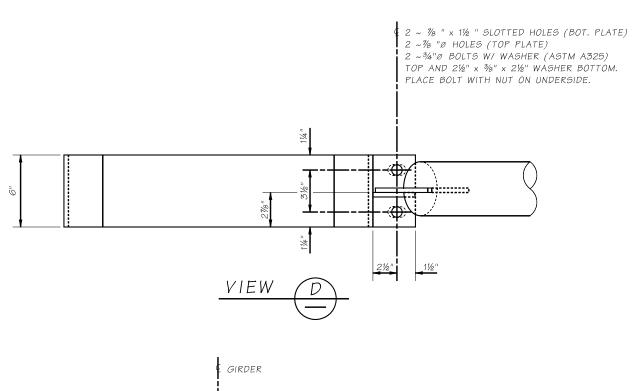


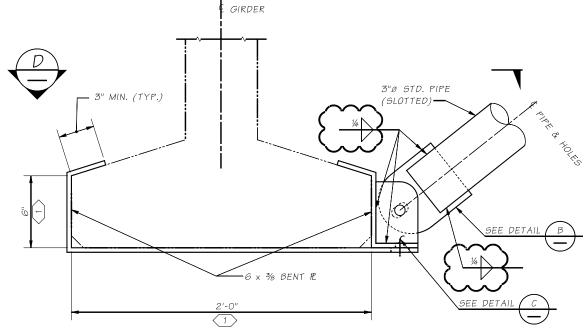




DETAIL









1 CONTRACTOR TO FIELD VERIFY PRIOR TO FABRICATION

_													
	Bridge Design Engr.	Khaleghi, B	12/20	M: \Z-1	ream\x15863 sR167 congestion hight\	DRAI	NAGE DI	TL ZA.N	rak				Ī
JOB	Supervisor	Rosa, M	12/20						STATE	FED. AID PROJ. NO.	e H	HOTAL SHEETS	l
ે.	Designed By	Phillips, D	09/20										l
D	Checked By	ROSB, M	12/20					10	WASH.				l
۵,	Detailed By	Lencke, D	09/20					TOP	NUMBER				l
SR	Bridge Projects Engr.								C526				l
02	Prelim. Plan By			02/21	AD3 - WELD SIZE	DP	MAR						R
	Architect/Specialist			DATE	REVISION	BY	APP'D						8
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**BRIDGE** AND **STRUCTURES OFFICE** 





SR 167 **SR 410 TO SR 18 CONGESTION MANAGEMENT** SR 167 OVER VALLEY AVE & RR. BR. NO. 167/32E

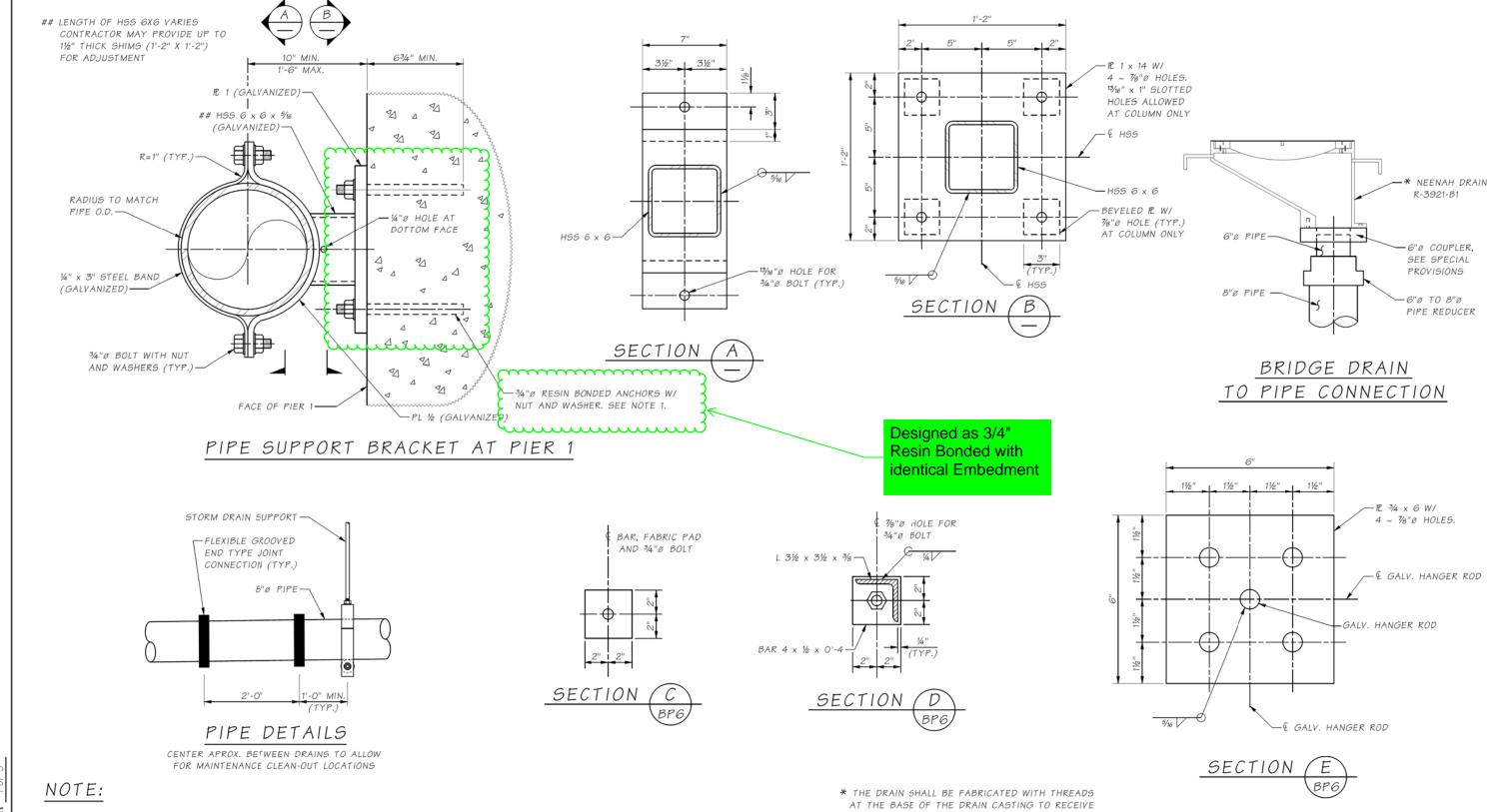
DRAINAGE DETAIL 3

Mon Mar 01 12:20:19 2021

SHEET

NOTES:

302 • 357



1. DRILLING THROUGH REINFORCING STEEL IS NOT ALLOWED. CORE DRILLING IS NOT ALLOWED. EXISTING STRUCTURE REINFORCEMENT SHALL BE LOCATED PRIOR TO DRILLING. THE CONTRACTOR SHALL SUBMIT A TYPE 2 WORKING DRAWING DESCRIBING THE REINFORCEMENT LOCATION PROCEDURE. IF STEEL IS HIT WHILE DRILLING, THE LOCATION SHALL BE MOVED AND THE ABANDONED HOLE SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 8-20.3(1).

REVISION

DATE

A THREADED JOINT COUPLER. ALTERNATIVELY, THE PIPE ENDS MAY BE CONNECTED USING A BOLTED FIELD FLANGE.

	Bridge Design Engr.	Khaleghi, B	12/20	M:\Z-	Team\xL5863 SR167						
	Supervisor	Rosa, M	12/20			$\top$	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	Designed By	Phillips, D	09/20								
l	Checked By	Rosa, M	12/20				10	WASH.			
l	Detailed By	Lemcke, D	09/20				TOP	NUMBER	$\dashv$		
	Bridge Projects Engr.	idge Projects Engr.						C526			
	Prelim, Plan By					$\neg$	$\vdash$				

BY APP'D



BRIDGE AND **STRUCTURES** OFFICE





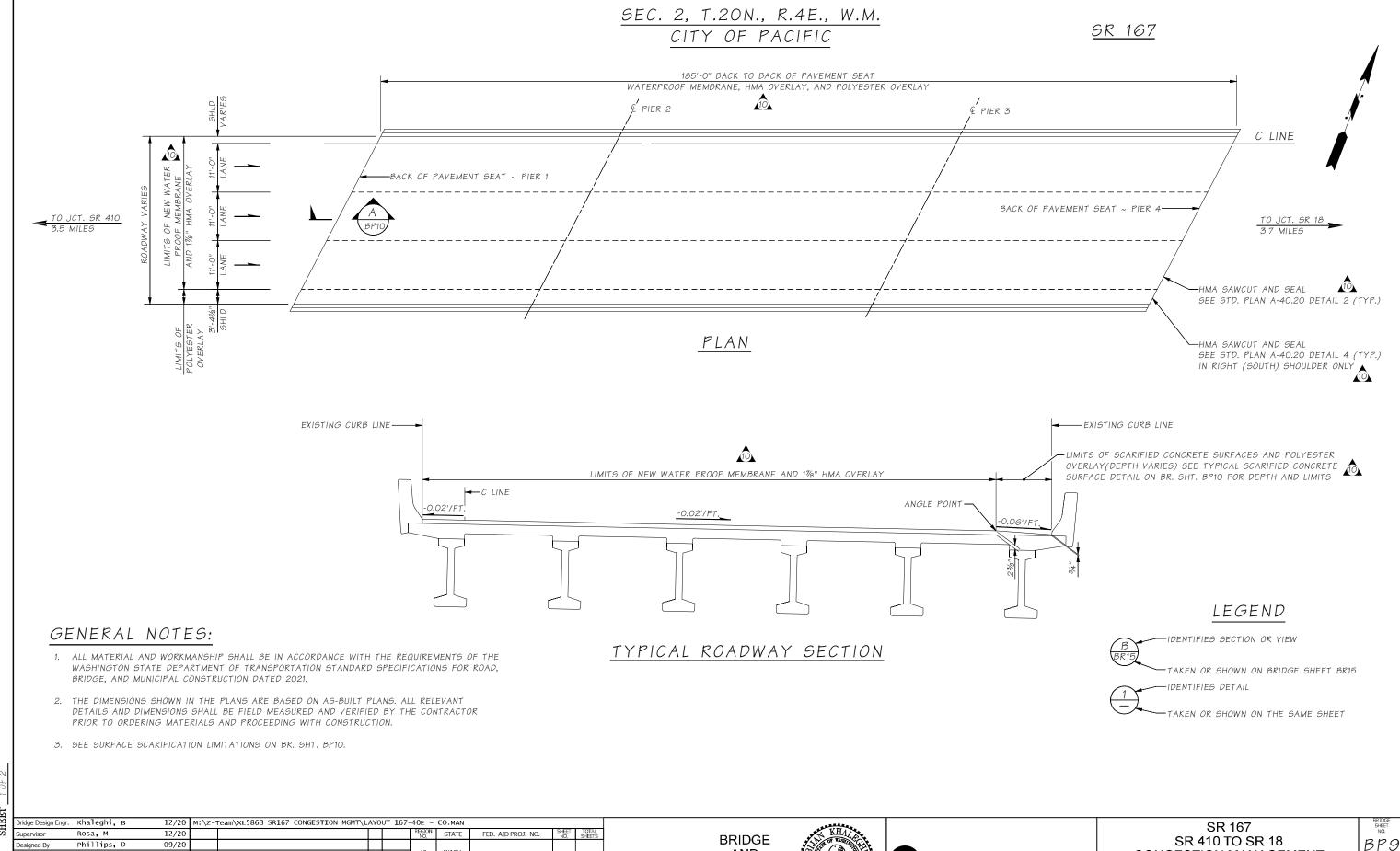
SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** SR 167 OVER VALLEY AVE & RR. BR. NO. 167/32E

DRAINAGE DETAIL 4

BP8 303

357

Architect/Specialist



Phillips, D 09/20 Designed By WASH Rosa. M 12/20 Lemcke, D etailed By JOB NUMBER Bridge Proj. Unit Mgr 08/21 🛕 CO10 - CHANGE TO HMA OVERLAY DP MAR relim. Plan By Architect/Specialist

AND **STRUCTURES OFFICE** 

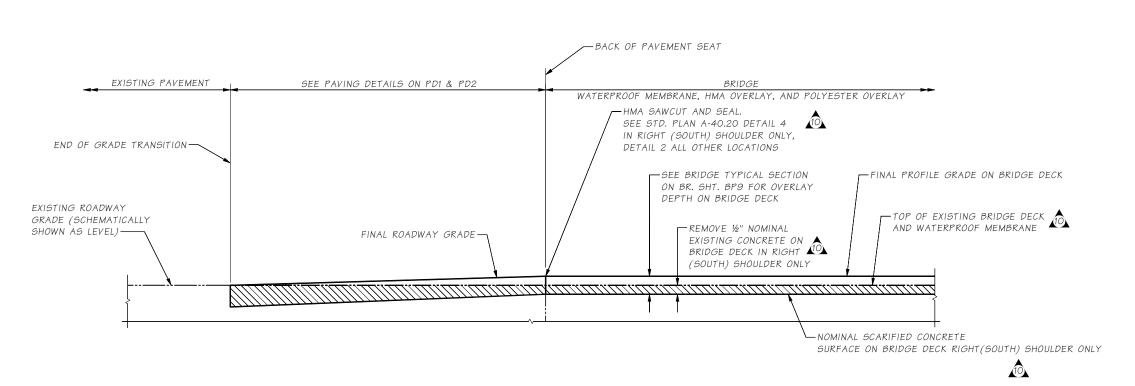


Washington State
Department of Transportation

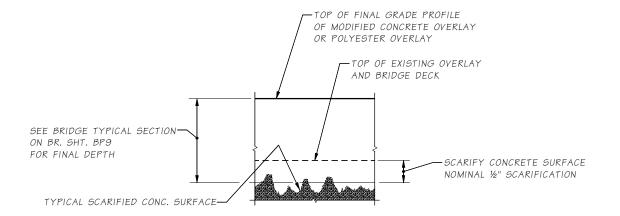
**CONGESTION MANAGEMENT** SR 167 OVER 8TH STREET E BR. NO. 167/40E

PLAN & SECTION

304 357







# TYPICAL SCARIFIED CONCRETE SURFACE DETAIL ON BRIDGE DECK

POLYESTER SECTION ONLY (RIGHT SHOULDER)

Ž													
	Bridge Design Engr.	Khaleghi, в	12/20	M:\Z-7	Team\xL5863 SR167 CONGESTION MGMT\	167-	40E RDW	Y TRAN	& SCAR	- CO.MAN			
	Supervisor	Rosa, M	12/20					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	] .
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<sub>N</sub>	Checked By	Rosa, M	12/20					10	WASH.				-
	Detailed By	Lemcke, D	09/20					TOP I	NUMBER				▎ 【.
SR	Bridge Projects Engr.								NUMBER C526				3
<b>U</b> 2	Prelim. Plan By			08/21	🛕 CO10 - CHANGE TO HMA OVERLAY	DP	MAR						`
	Architect/Specialist			DATE	REVISION	BY	APP'D						



BRIDGE AND STRUCTURES OFFICE





SR 167
SR 410 TO SR 18
CONGESTION MANAGEMENT
SR 167 OVER 8TH STREET E BR. NO. 167/40E
ON INT TRIVIAL O

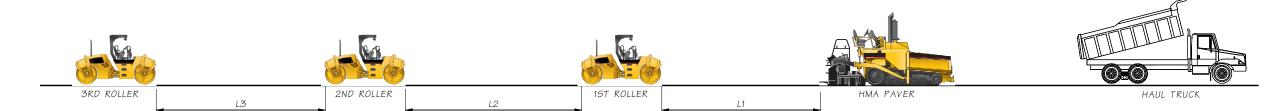
GRADE TRANSITION & SCARIFICATION DETAILS

SHEET 305 OF 357

SR 5 JOB NO. 7000 SHEE

## BRIDGE HMA PAVING NOTES:

- 1. DURING HMA PAVING WORK ON BRIDGES, CONSTRUCTION LOADS ON THE BRIDGE SHALL BE RESTRICTED TO THE SPECIFIED HMA PAVING TRAINS. ONLY ONE HMA PAVING TRAIN IS ALLOWED ON A BRIDGE AT A TIME.
- 2. THE USE OF MTV'S AND/OR WINDROWS IN NOT ALLOWED.
- 3. ONLY ONE HAUL TRUCK IS PERMITTED ON A SPAN AT ANY TIME DURING PAVING OPERATIONS.
- 4. ADDITIONAL ROLLERS MAY BE USED BEHIND THE 3RD ROLLER. ADDITIONAL ROLLERS SHALL MEET THE REQUIREMENTS FOR THE 3RD ROLLER, AND SHALL BE SPACED AT LEAST L3 FT. APART.
- 5. ALL SPECIFIED MAXIMUM GROSS WEIGHTS ARE THE EQUIPMENTS FULLY LOADED WEIGHT. EXAMPLE: THE HMA PAVER WEIGHT = HMA PAVING MACHINE OPERATING WEIGHT + SCREED WEIGHT + WT. OF HMA IN THE HOPPER.
- 6. WHEN THE CAPACITY OF THE PROPOSED HMA PAVER OR HAUL TRUCK EXCEEDS THE MAXIMUM WEIGHT ALLOWED IN THE HMA PAVING TRAIN, THE CONTRACTOR SHALL SUBMIT A PAVING LOAD CONTROL PLAN TO THE ENGINEER AS TYPE 2 WORKING DRAWINGS. THE PAVING LOAD CONTROL PLAN SHALL INCLUDE CONTRACTOR'S MEANS, METHODS AND QUALITY CONTROL PLAN TO PREVENT THE MAXIMUM EQUIPMENT WEIGHTS FROM BEING EXCEEDED.
- 7. DISTANCES (L#) IS THE DISTANCE BETWEEN VEHICLE AXLES.



10

BRIDGE NO.	3RD ROLLER	L3	2ND ROLLER	L2	1ST ROLLER	L1	HMA PAVER	HAUL TRUCK
DRIDGE NO.	MAX. GROSS VEHICLE WT. (LBS.)	MIN. SPACING	MAX. GROSS VEHICLE WT. (LBS.)	MIN. SPACING	MAX. GROSS VEHICLE WT. (LBS.)	MIN. SPACING	MAX. GROSS VEHICLE WT. (LBS.)	MAX. GROSS VEHICLE WT. (LBS.)
90/75N	30,000	20'-0"	30,000	20'-0"	30,000	30'-0"	50,000	50,000

HMA PAVING TRAIN



>	l												
_	Bridge Design Engr.	Khaleghi,	в 08/21	M:\Z-7	ream\xL5863 SR167 CONGESTION MGMT\P	IIVA	NG DETA	NILS.MA	N.				_
5	Supervisor	Rosa, M	08/21					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
~.	Designed By	Phillips,	D 08/21										
$^{\prime}$	Checked By	Rosa, M	08/21					10	WASH.			i l	
"	Detailed By	Phillips,	D 08/21					TOP I	NUMBER				
片	Bridge Projects Engr.								0526				
- 2	Prelim. Plan By			08/21	⚠ CO10 - PAVING TRAIN	DP	MAR					i l	
	Architect/Specialist			DATE	REVISION	BY	APP'D						



BRIDGE AND STRUCTURES OFFICE

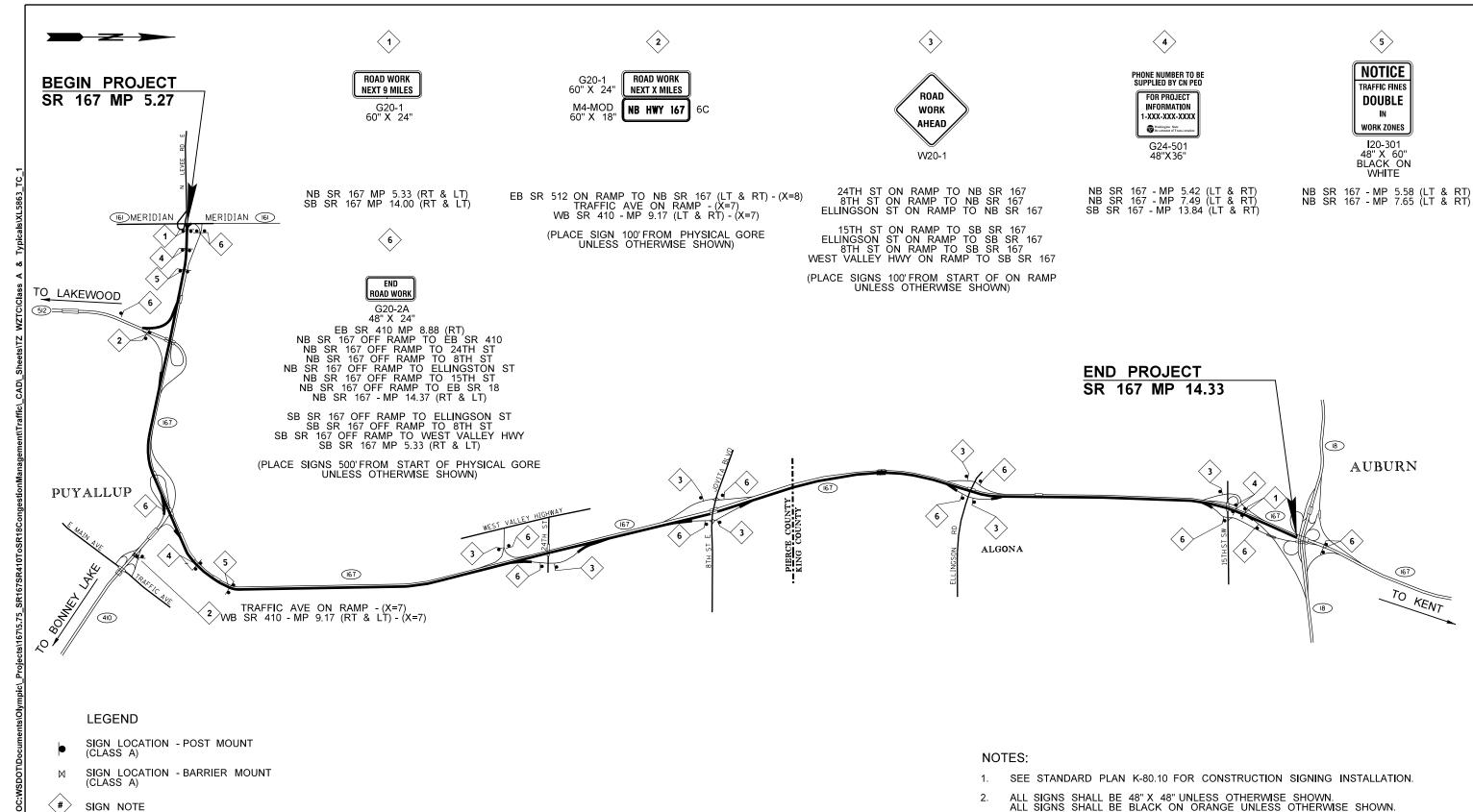




SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT SR 167 OVER 8TH STREET E BR. NO. 167/40E

BRIDGE CONSTR. RESTRICTIONS HMA PAVING SHEET OF

Wed Aug 11 09:32:15 202



- ALL SIGNS SHALL BE BLACK ON ORANGE UNLESS OTHERWISE SHOWN.
- THE CLASS A SIGNING SHALL BE COORDINATED WITH OTHER PROJECTS IN THE

FILE NAME	c:\users\hindscl\d0292196\XL5	863_TC_1.dgn				
TIME	11:18:13 AM			REGION NO.	STATE	FED.AID PROJ.NO.
DATE	12/11/2020				WASH	
PLOTTED BY	hindscl			10	WASH	
DESIGNED BY	C. HINDS			18C	UMBER	
ENTERED BY	C. HINDS			100	526	
CHECKED BY	R CRUMBLEY			CONTR	ACT NO.	LOCATION NO.

REVISION

X STATE ROUTE

L. MOODY

REGIONAL ADM. J. WYNANDS

PROJ. ENGR.

DATE

XL5863

BY

DATE

CLASS A SIGNING PLAN

NOT TO SCALE

Washington State **Department of Transportation** 

DATE

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

**ADVANCE SIGNING PLAN** 

306 357

PLAN REF NO TC1

	MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)											
SHOULDER WIDTH				Pos	ted Sp	eed (n	nph)					
(feet)	25	30	35	40	45	50	55	60	65	70		
8'	40	40	60	90	120	130	150	160	170	190		
10'	40	60	90	90	150	170	190	200	220	240		
	USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THAN 8'.											

SIGN SPACING	= X (1)	
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)
(1) ALL SPACING MAY BE ADJUSTED TO RAMPS, AT-GRADE INTERSECTIONS AN (2) THIS SPACING MAY BE REDUCED IN ROADWAY CONDITIONS.	ID DRIVEWAYS.	

BUFFER DATA												
LONGITUDINAL BUFFER SPACE = B												
SPEED (MPH)         25         30         35         40         45         50         55         60         65         70												
LENGTH (fe	eet)	-	-	-	-	360	425	495	570	645	730	
TRANSP	ORTA	BLE A	TTEN	UATO	R RO	LL AI	HEA	D DIST	ANCE	= R		
		E WEIC 2,000 lb				ŀ	HOST	VEHICL > 22,000		3HT		
< 45 MPH	45-55	MPH	> ;	55 MPH	<	45 MP	н	45-55 l	ИРH	> 55	МРН	
100'		74'		100		150	)'					

MPH

50/70

35/45

25/30

CHANNELIZATION DEVICE

SPACING (feet)

TAPER

40

30

20

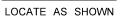
TANGENT

80

60

40

PC	MS
1	2
SHOULDER	1
CLOSED	MILE
AHEAD	AHEAD
2.0 SEC	2.0 SEC



SIGN LOCATION - TEMPORARY MOUNT

TRAVEL DIRECTION OF OPEN LANE

PROTECTIVE VEHICLE - ATTENUATOR OPTIONAL FOR SPEEDS 40MPH OR LESS

PORTABLE CHANGEABLE MESSAGE SIGN

LEGEND

TRAFFIC CONE

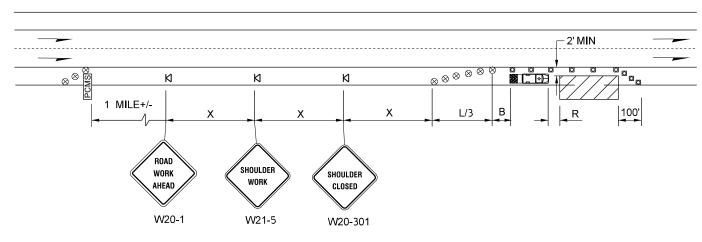
WORK AREA

TRAFFIC SAFETY DRUM

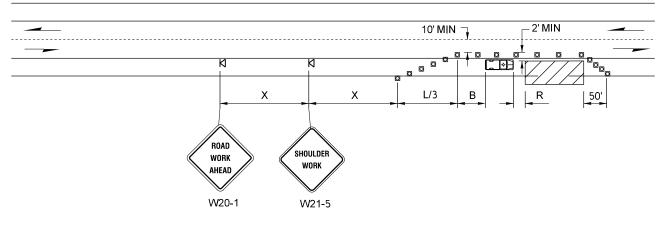
PROTECTIVE VEHICLE

K

PCMS



### SHOULDER CLOSURE - HIGH SPEED (> 40 MPH)



SHOULDER CLOSURE - LOW SPEED (< 40 MPH)

#### SHOULDER CLOSURES

NOT TO SCALE

# NOTES:

- 1. SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- 2. ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- PROTECTIVE VEHICLE REQUIRED MAY BE A WORK VEHICLE FOR SPEEDS 40 MPH OR LESS.
- 4. EXTEND CHANNELIZING DEVICE TAPER ACROSS SHOULDER.
- 5. PCMS SHALL NOT BE PLACED IN GORE. PCMS SHALL HAVE MINIMUM 4'CLEARANCE TO TRAVELED LANE.
- 6. DURING HIGH SPEED CLOSURE NO ENCROACHMENT ON TRAVELED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED USING AN APPROVED PLAN.
- CLOSURES NEAR INTERSECTIONS SHALL NOT BLOCK SIGHT DISTANCE FOR VEHICLES ENTERING FROM THE SIDE ROAD.
- 8. FOR SHOULDER CLOSURES ON RAMPS, LOW SPEED CLOSURE CAN BE USED FROM THE INTERSECTION TO THE GORE NOSE.

FILE NAME	c:\users\hIndscI\d0292196\XL5863_TC_2.dgn									
Ž TIME	11:21:27 AM			REGION STATE	FED.AID PROJ.NO.				SR 167	PLAN REF NO
DATE	12/11/2020			10 WASH						TC2
≥ PLOTTED BY	hindscl			IU WASH					SR 410 TO SR 18	.02
DESIGNED BY	C. HINDS			18C526				Washington State	CONGESTION MANAGEMENT	SHEET
ENTERED BY	C. HINDS			100320				j	CONSESTION MANAGEMENT	307
EHECKED BY	R. CRUMBLEY			CONTRACT NO.	LOCATION NO.			Department of Transportation		OF
PROJ. ENGR.	L. MOODY				XL5863	DATE	——————————————————————————————————————		TRAFFIC CONTROL	357 SHEETS
REGIONAL ADM	I WYNANDS REVISION	DATE	RV			DE STAND BOY	DE STAND BOY		I III GOITHGE	SILLIS

npic\\_Projects\167\5.75\_SR167SR410ToSR18CongestionManagement

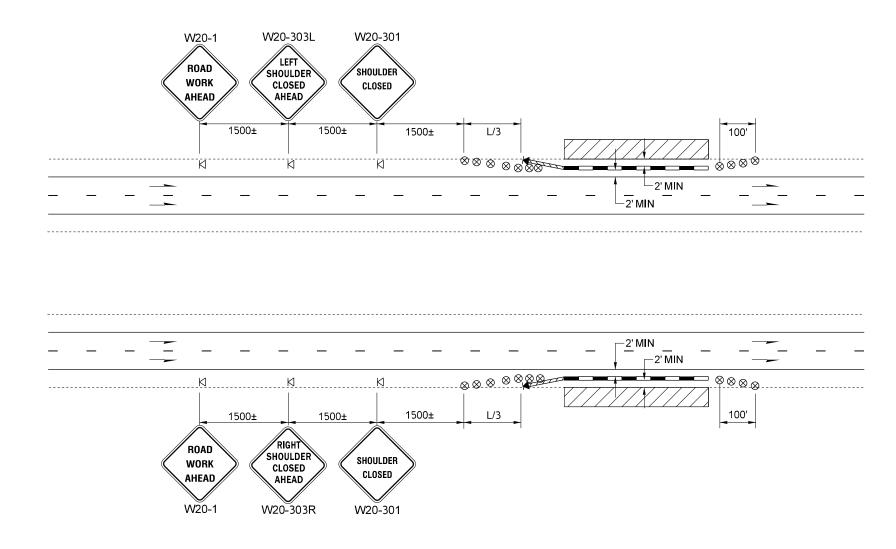
	MINI	MUM S	SHOUL	DER T	APER	LENG	rH = ι	_/3 (fee	t)			
SHOULDER		Posted Speed (mph)										
WIDTH (feet)	25	30	35	40	45	50	55	60	65	70		
8'	-	-	-	-	-	130	150	160	170	190		
10'	-	-	-	-	-	170	190	200	220	240		
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THAN 8'.												

 CHANNELIZATION DEVICE

 SPACING (feet)

 MPH
 TAPER
 TANGENT

 50/70
 40
 80



LEGEND

SIGN LOCATION - TEMPORARY MOUNT (CLASS "B")

TRAFFIC SAFETY DRUM

PCMS

TRAVEL DIRECTION OF OPEN LANE

PORTABLE CHANGEABLE MESSAGE SIGN

TEMPORARY BARRIER - NEW

TEMPORARY IMPACT ATTENUATOR

PROTECTED AREA

# SHOULDER CLOSURE TEMPORARY BARRIER PROTECTED

NOT TO SCALE

NOTES:

- SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- 2. ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- 3. THIS PLAN IS TO BE USED WITH EXISTING LANE LINES.

<u>.  </u>									
FILE NAME	c:\users\hlndscl\d0292196\XL5863_TC_3.dgn								
TIME	11:21:55 AM		REGION STATE	FED.AID PROJ.NO.				SR 167	PLAN REF NO
DATE	12/11/2020		10 WASH						ТС3
PLOTTED BY	hindscl		IU WASH					SR 410 TO SR 18	
DESIGNED BY	C. HINDS		18C526				Washington State	CONGESTION MANAGEMENT	SHEET
ENTERED BY	C. HINDS		100326				9		308
CHECKED BY	R. CRUMBLEY		CONTRACT NO.	LOCATION NO.			Department of Transportation		OF
PROJ. ENGR.	L. MOODY			XL5863	DATE	DATE	-	TRAFFIC CONTROL	357 SHEETS
REGIONAL ADM	. J. WYNANDS REVISION	DATE E	зү		P.E. STAMP BOX	P.E. STAMP BOX		TRAITIO CONTROL	SHEETS

SIGN SPACING = X (1) FREEWAYS & EXPRESSWAYS 55 / 70 MPH 1500' ±			MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)						NNELIZATION DEVICE SPACING (feet) BUFFER DATA							
RURAL HIGHWAYS	60 / 65 MPH	800'±	LANE			Posted Spe	ed (mph)		MPH F0/70		TANGENT		LONGITUDINAL B	UFFER SPAC	E = B	
RURAL ROADS	45 / 55 MPH	500'±	WIDTH (feet)	25 30		0 45	50 55	60 65 70	50/70 35/45		80 60	SPEED (MPH)	25 30 35	40 45 50	0 55 60	65 70
RURAL ROADS & URBAN ARTERIA		350' ±	10			-						LENGTH (feet)	155 200 250	305 360 42		645 730
RURAL ROADS & URBAN ARTERIA RESIDENTIAL & BUSINESS DISTRIC		200'± (2)	11		-	495	550 605	660				, ,	BLE ATTENUATOR			
JRBAN STREETS	25 MPH OR LES	SS 100'± (2)	12		-	- 540	600 660	720 780 840							T VEHICLE WEIG	
(1) ALL SPACING MAY BE ADJUST RAMPS, AT-GRADE INTERSECTIO		INTERCHANGE										HOST VEHIC 9,900 TO			> 22,000 lbs.	
(2) THIS SPACING MAY BE REDUC		TO FIT			$\bigcirc$							< 45 MPH 45-55	5 MPH > 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
ROADWAY CONDITIONS.			ROAD		T LANE							100' 1	23' 172'	74'	100'	150'
			WORK		OSED											
			AHEAD	// Al	HEAD /	<b>♥#</b> ###################################										
			W20-1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ρ-5(L) <sub>γ</sub>	W4 <sub>†</sub> 2(R)										
	PCMS	. 1 MII		^		I	X	L L	B	-	$\rightarrow$	10	<u>O'</u>			
1	2	- I WII	\				800	L/3								
LEF-	- 1		И		И	И	×-×-×	, ⊗ . ⊗ . ⊗	-+⊗			//////		_		
LANE	MILE								$^{\prime}\otimes$ $\otimes$ $\otimes$	⊗ ⊗ <u></u> ⊗ ⊗		<u> </u>	× <del>-</del>			
CLOSE	D AHEAD													·		
2.0 SE	C 2.0 SEC	⊗ ⊗ PC	И		KI	И					—2 WIIN					
LOCATI	AS SHOWN															
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												<b>►</b> A				
	PCMS															
1	2		И		И	KI					2'MIN			_		
RIGH	Т 1							 ,	~~ ~ ~ ~ ~ ~ ~	<u> </u>	$^-\otimes^{\downarrow}\otimes^-\otimes^-\otimes^-\otimes^-\otimes^-$	)				
LANE	MILE							$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	8				⊗⊗	<del></del>		
CLOSE	D AHEAD	⊗ ⊗ PCMS	<u>N</u>		<u>N</u>	<u>K</u>	⊗ ⊗	0 ⊗ ⊗ ♥				<i></i>				
2.0 SE	C 2.0 SEC	1 MII	LE +/-	X	X		x  -	L/3	В		R	10	0'			
LOCATI	AS SHOWN				^			<b>→</b>	<b>-</b>	-	→	<del></del>				
			ROAD	RIGHT	T LANE							<b>►</b> A				
			WORK	Cro	ISED 🧪 🤇		)									
			AHEAD	AH	EAD											
LECEN	D		W20-1	W20-	-5(R)	W4-2(L)					NOTES:					
LEGEN													BLIC CONVENIENCE		- CONSTRUCTI	ION
⊠ SIGN LOCATION (CLASS "B")	I - TEMPORARY MOU	INT									UNDER TRAF	FIC" FOR WORK HO	OUR RESTRICTIONS.			
, , , , , , , , , , , , , , , , , , ,	- BARRIER MOUNT												UNLESS OTHERWIS N ORANGE, UNLESS			
₹ SAFET	Y DRUM												,		oriovin.	
SEQUENTIAL AF	ROW SIGN - TYPE	С									3. EXTEND CHA	INNELIZING DEVICE	TAPER ACROSS SI	HOULDER.		
TRAVEL DIRECT	ION OF OPEN LANE											NOT BE PLACED I	N GORE. CLEARANCE TO TR	AVELED LANE.		
PROTECTIVE VEO	HICLE - ATTENUATOR SPEEDS 40MPH OR	R LESS					S	INGLE LANE (	CLOSURE			CHMENT ON TRAVE				
	NGEABLE MESSAGE						J	RIGHT OR						DV 4000!		
TONTABLE OTA		5,51					ı	MULTILANE RO			b. USE IRANSV	ERSE DEVICES IN	CLOSED LANE EVE	KY 1000'.		
WORK AREA							l	NOT TO SCAL			7. THIS PLAN IS	S ONLY FOR USE	ON ROUTES THAT	PROHIBIT PEDE	ESTRIANS OR	BICYCLES.
E NAME c:\users\hindscl\d029219	6\XL5863_TC_4.dgn										T					
IE 11:21:57 AM TE 12/11/2020					REGION STATI	_	PROJ.NO.					<b>7</b>		SR 167		PLAN REF
OTTED BY hindscl					10 WAS									410 TO SR		TC
SIGNED BY C. HINDS TERED BY C. HINDS					18C526							ington State	CONGES	TION MANA	GEMENT	SHEET 309
IECKED BY R. CRUMBLEY OJ. ENGR. L. MOODY					CONTRACT NO.		L5863				1 -	of Transportation	TDA	EEIC CONT	BOI.	o₅ 357
EGIONAL ADM. J. WYNANDS		REVISION		DATE B	3Y	^	_5555	P.E. STAMP BOX	ATE	P.E. STAMP BOX	ATE		IRA	FFIC CONTI	KUL	SHEETS

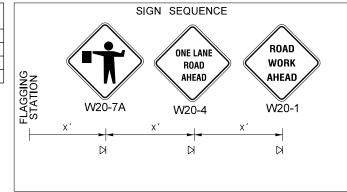
SIGN SPACING =	X (1)	
RURAL HIGHWAYS	60 / 65 MPH	800'
RURAL ROADS	45 / 55 MPH	500'
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'
URBAN STREETS	25 MPH OR LESS	100'

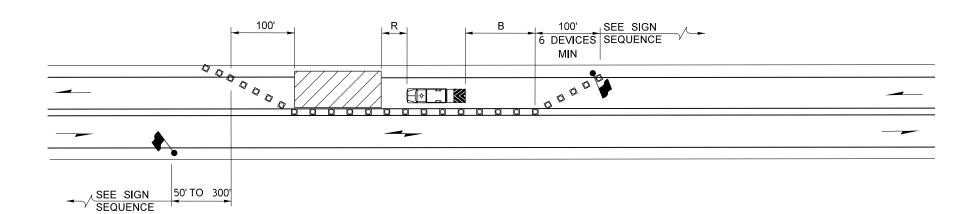
- (1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS, DRIVEWAYS, AND OTHER SIGNING.
- (2) W20-7B SIGN AND PCMS ARE OPTIONAL IF THE SPEED LIMIT IS 40 MPH OR LESS.

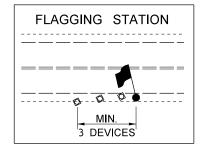
BUFFER DATA											
	LONGITUDINAL BUFFER SPACE = B										
SPEED (MF	PH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)		155	200	250	305	360	425	495	570	645	730
TRANSP	TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R										
	HOST VEHICLE WEIGHT HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs. > 22,000 lbs.										
< 45 MPH	>	55 MPH	< ا	< 45 MPH 45-55 MPH > 55 MP				МРН			
100' 123'				172'		74' 100' 150				)'	
PROTECTIVE VEHICLE (WORK VEHICLE) = R											

NO SPECIFIED DISTANCE REQUIRED

CHANNELIZATION DEVICE SPACING (feet)							
MPH	TAPER	TANGENT					
50/70	40	80					
35/45	30	60					
25/30	20	40					







#### LEGEND

SIGN LOCATION - TEMPORARY MOUNT

FLAGGING STATION

TRAFFIC CONE

WORK AREA

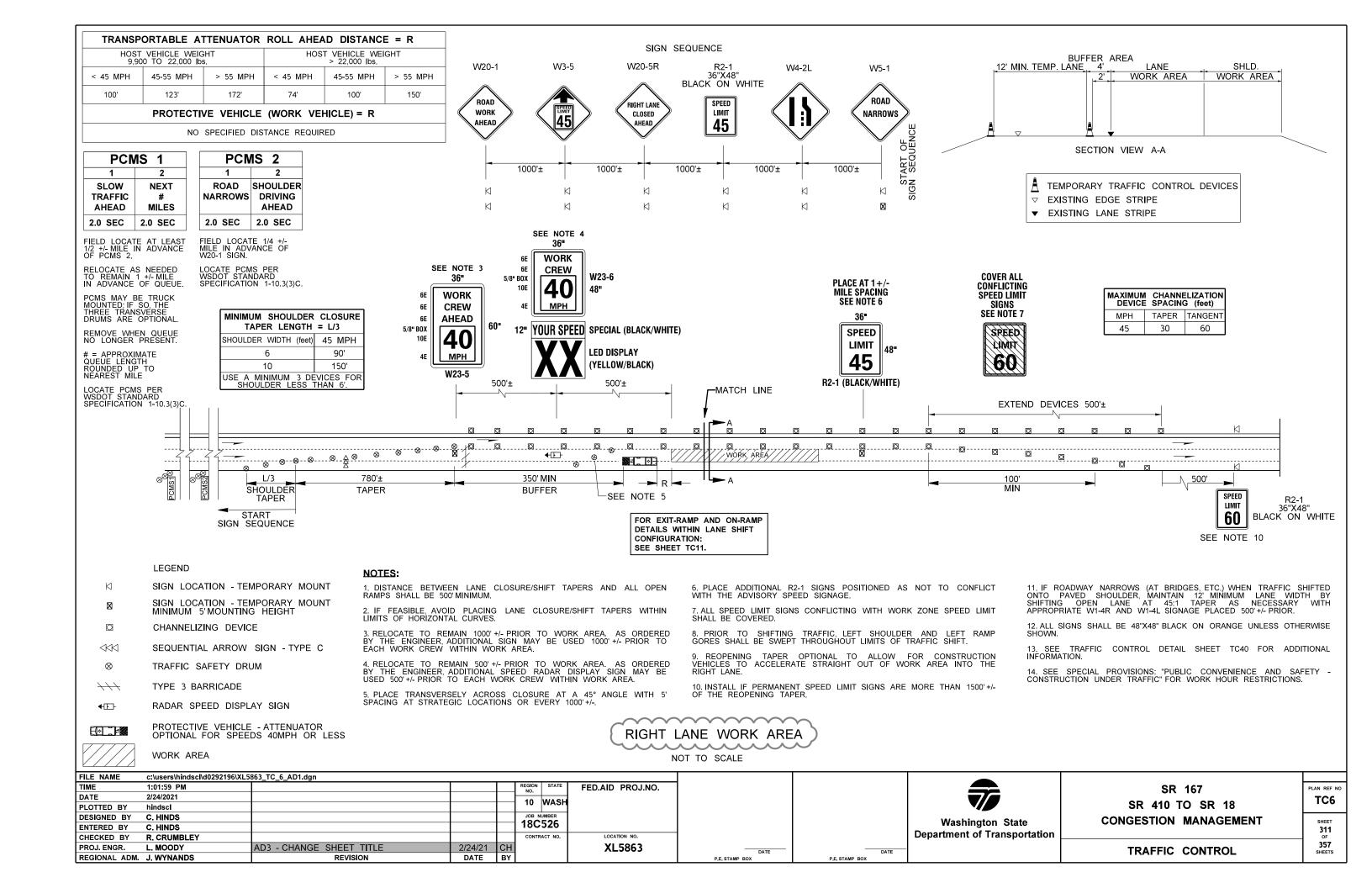
ALTERNATING ONE-WAY TRAFFIC FLAGGER CONTROLLED

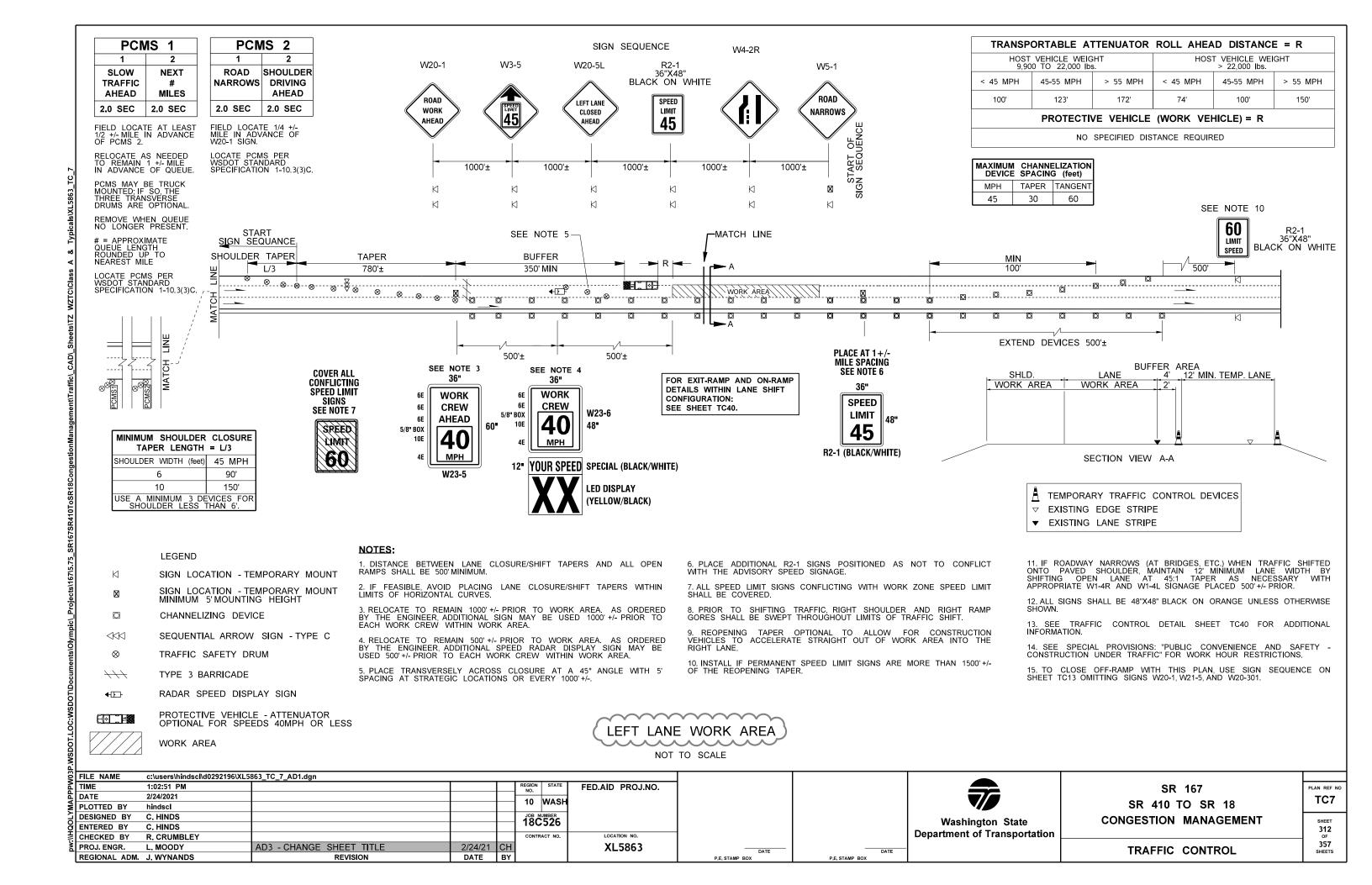
NOT TO SCALE

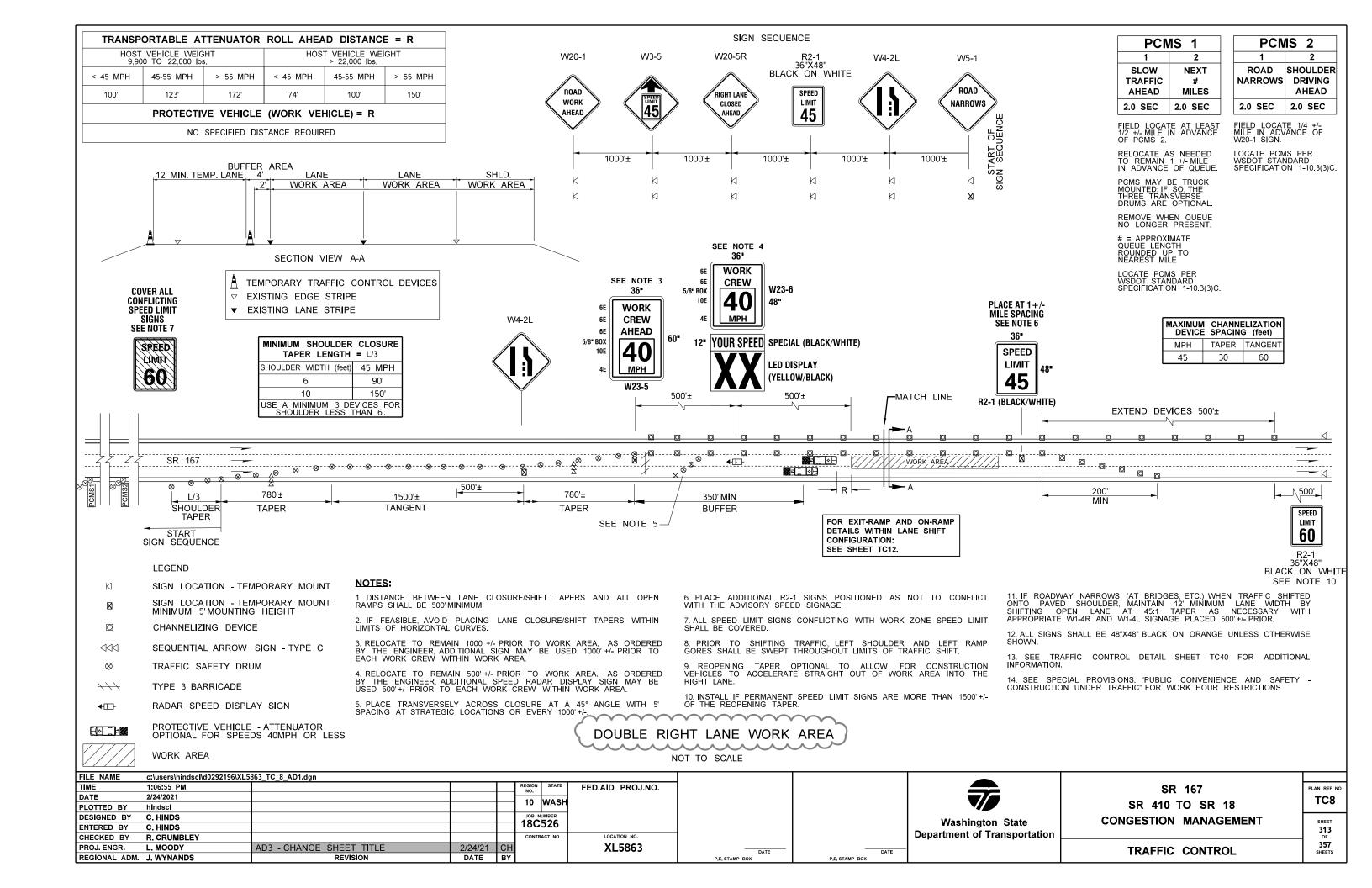
#### NOTES:

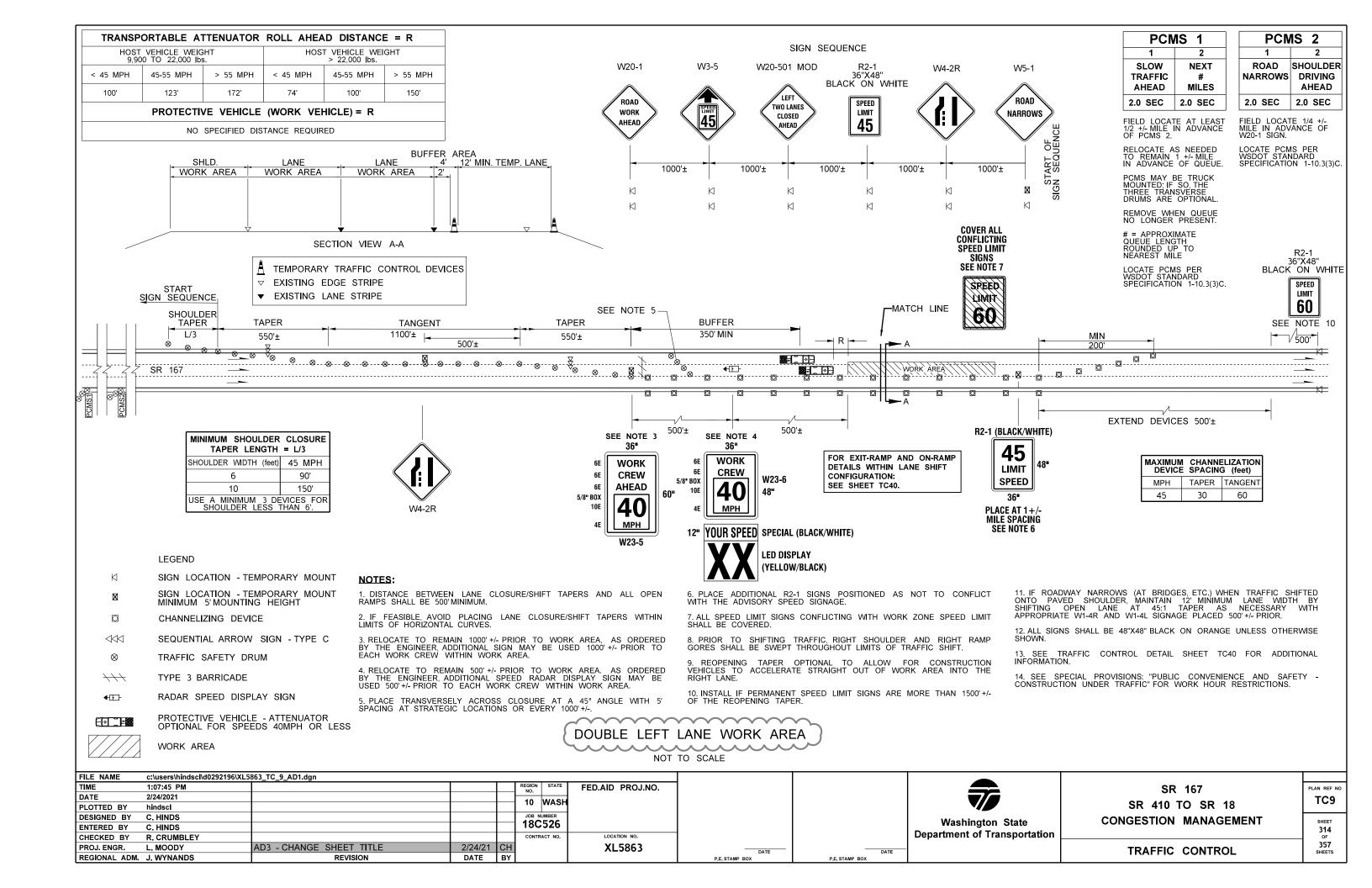
- 1. SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- 2. ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE SECTION 1-10.3(1)A.
- 4. SIGN SEQUENCE IS THE SAME FOR BOTH DIRECTIONS OF TRAVEL ON THE ROADWAY.
- 5. WHEN USED, THE DOWNSTREAM TAPER DEVICE SPACING SHALL BE 20'O.C.
- 6. CONTRACTOR SHALL ESCORT PEDESTRIANS THROUGH WORK AREA OR PROVIDE AN ACCEPTABLE ALTERNATIVE ROUTE.

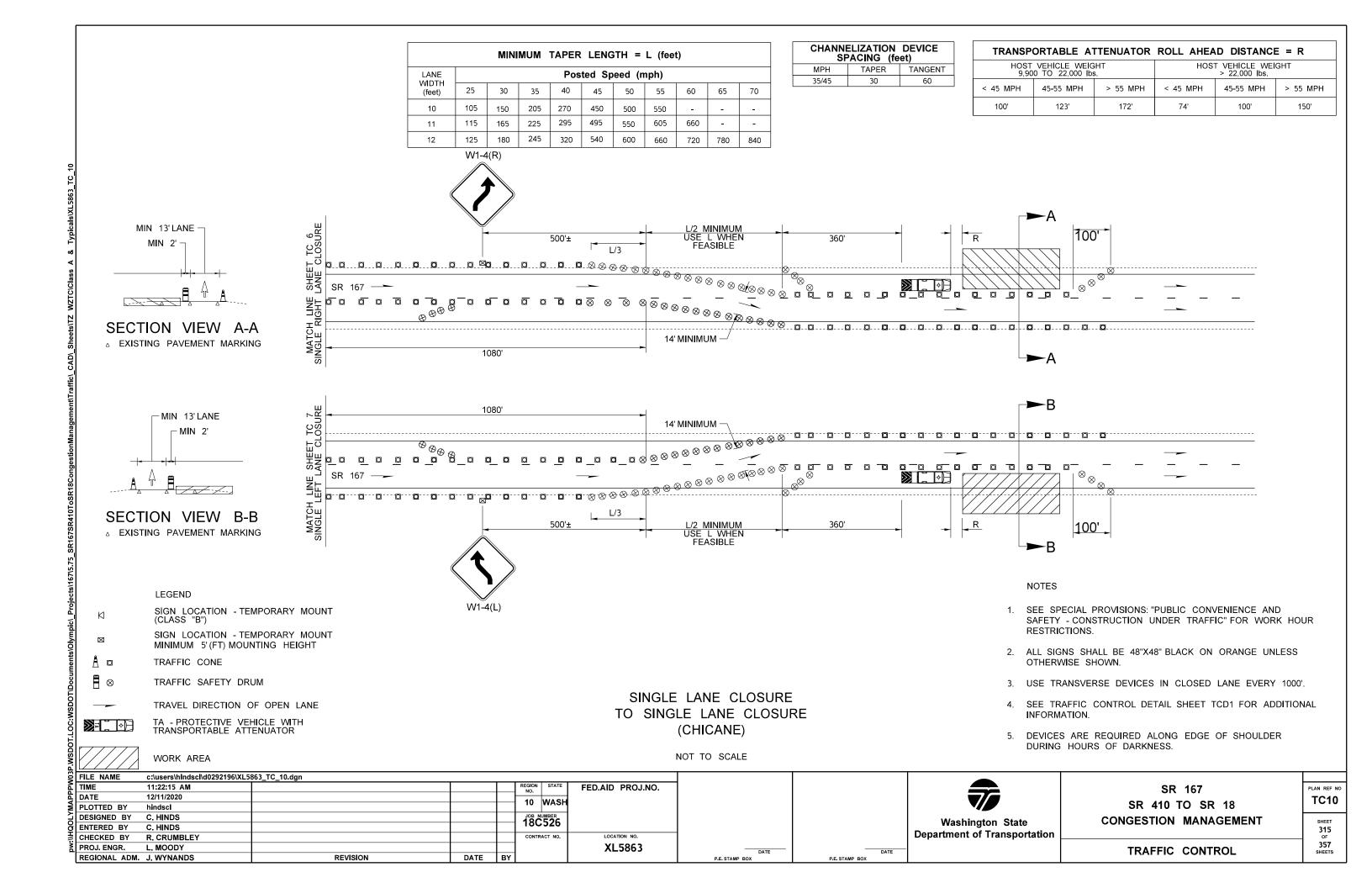
FILE NAME	c:\users\hindscl\d0292196\XL	5863_TC_5_AD3.dgn									
TIME	1:57:20 PM				REGION STATE	FED.AID PROJ.NO.				SR 167	PLAN REF NO
DATE	2/24/2021			-	10 WASH						TC5
PLOTTED BY	hindscl				IU WASH					SR 410 TO SR 18	
DESIGNED BY	C. HINDS				JOB NUMBER 18C526				Washington State	CONGESTION MANAGEMENT	SHEET
ENTERED BY	C. HINDS				100526				J		310
CHECKED BY	R. CRUMBLEY				CONTRACT NO.	LOCATION NO.			Department of Transportation		OF
PROJ. ENGR.	L. MOODY	AD3 - CHANGE SHEET TITLE	2/24/21	СН		XL5863	DATE	DATE	-	TRAFFIC CONTROL	357 SHEETS
REGIONAL ADM	I. J. WYNANDS	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX		IIIAITIO CONTROL	SIZETS

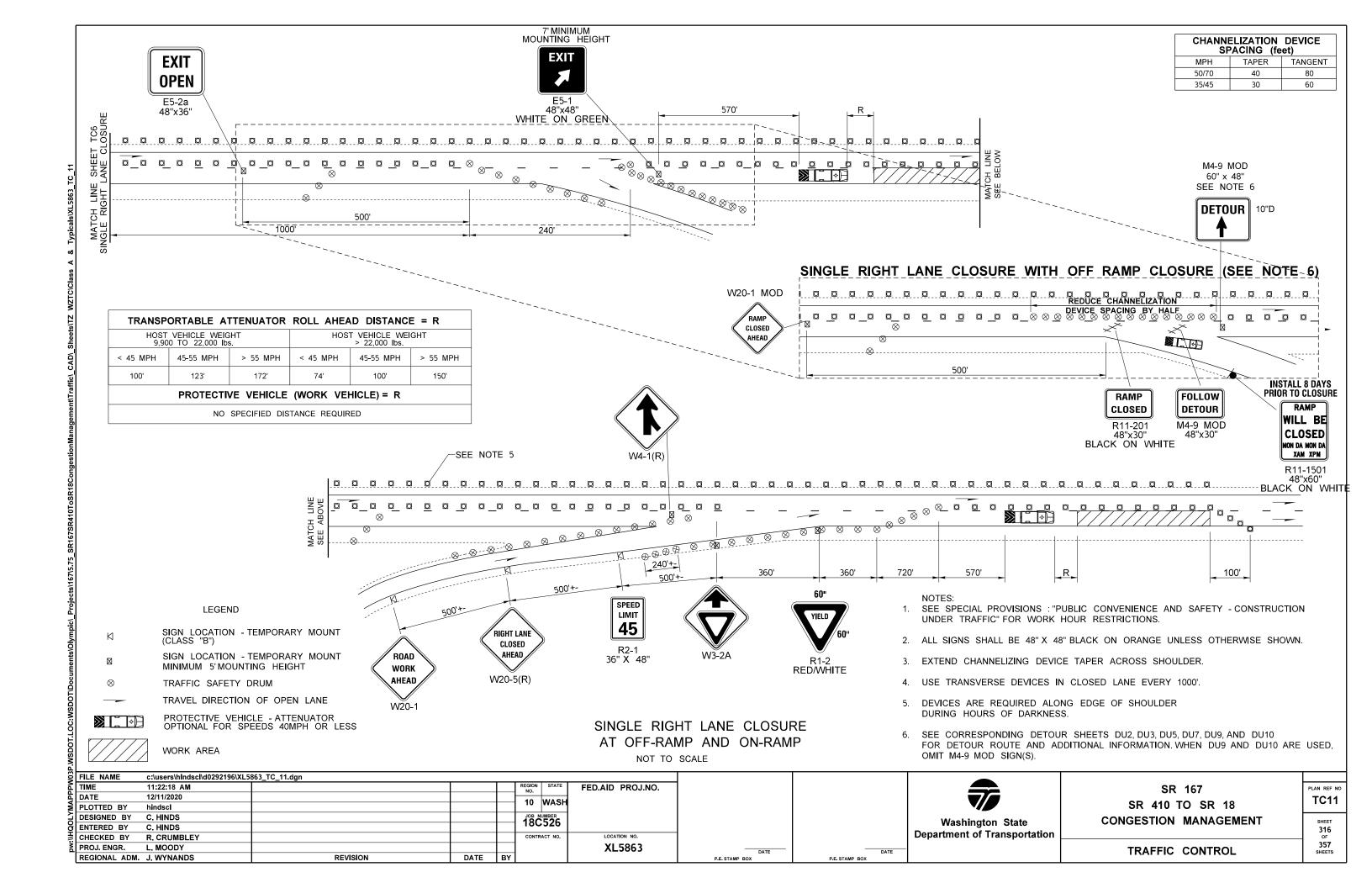


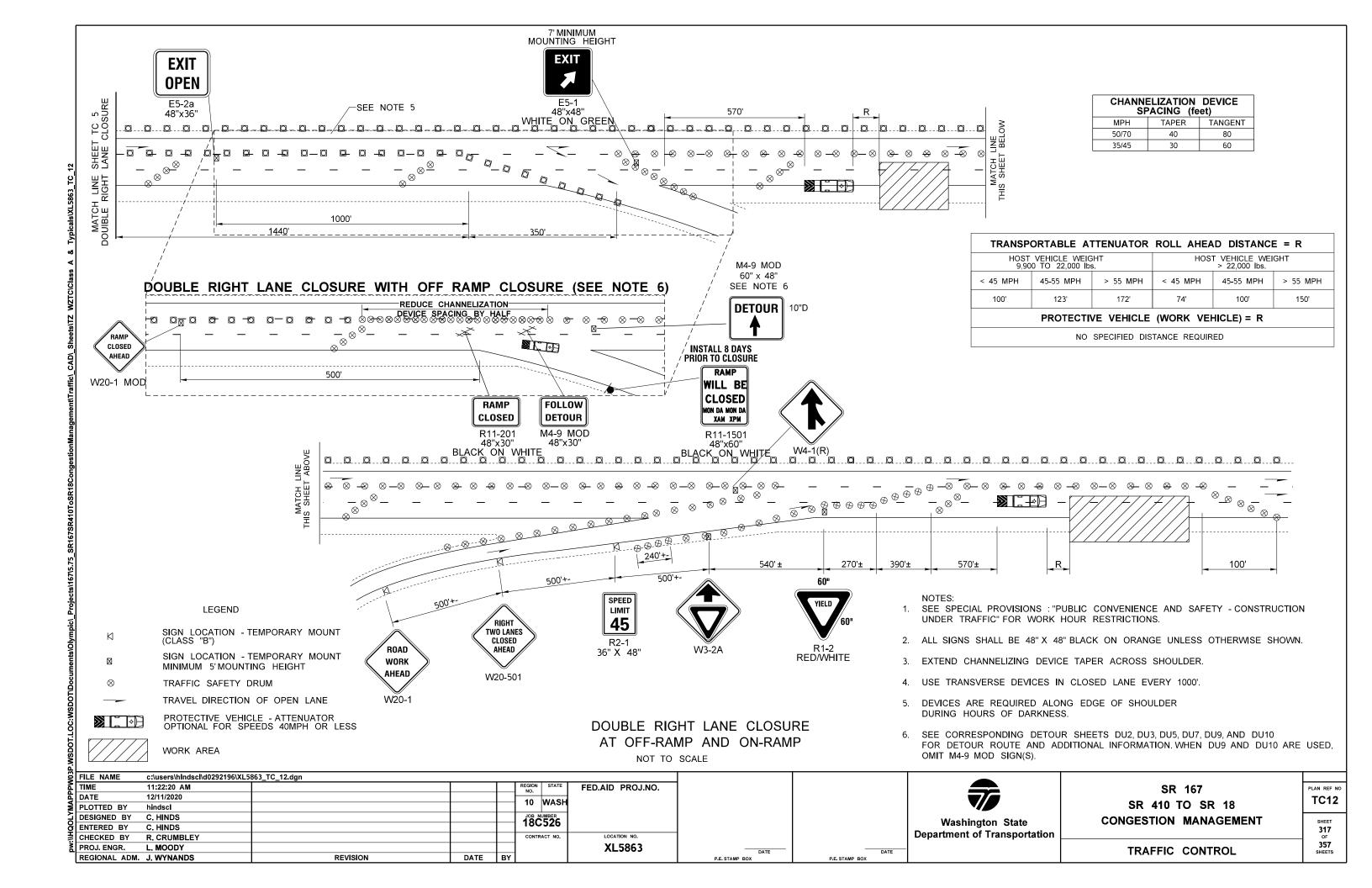












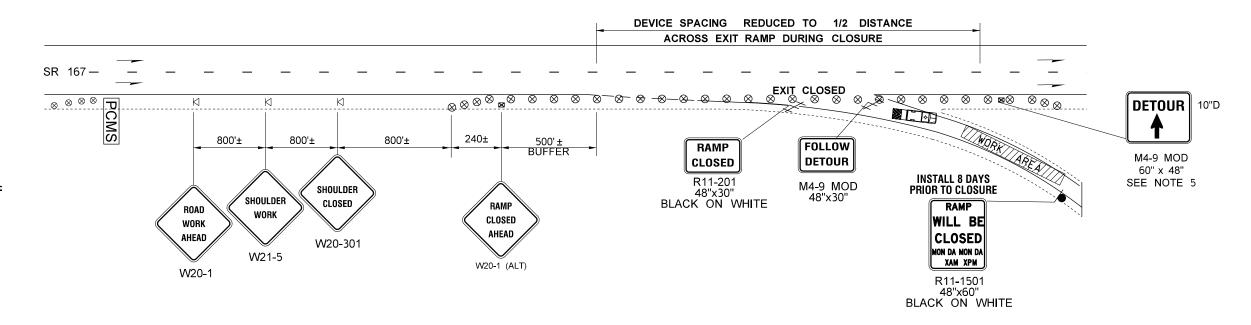
CHANNELIZATION DEVICE SPACING (feet)							
MPH	TAPER	TANGENT					
50/70	40	80					
35/45	30	60					

BUFFER DATA											
		LONG	ITUDI	NAL I	3UFFI	ER SF	ACE	= B			
SPEED (MPH) 25			30	35	40	45	50	55	60	65	70
LENGTH (feet)		155	200	250	305	360	425	495	570	645	730
TRANSP	TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R										
	HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.							VEHICLE > 22,000		SHT	
< 45 MPH	> !	> 55 MPH				> 55 MPH					
100' 123'				172'		74'		100'		150'	

SEE DETOUR PLAN FOR PCMS MESSAGE (SEE NOTE 5)

PCMS								
1	2							
xxx	xxx							
XXX	XXX							
XXX	XXX							
2.0 SEC	2.0 SEC							

FIELD LOCATE 1 MILE ± PRIOR TO CLOSURE



LEGEND

 $\bowtie$ 

SIGN LOCATION - POST MOUNT CLASS A

SIGN LOCATION - TEMPORARY MOUNT

SIGN LOCATION - TEMPORARY MOUNT 5' MINIMUM MOUNTING HEIGHT

TYPE 3 BARRICADE

WORK AREA

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TRAVEL DIRECTION OF OPEN LANE

PROTECTIVE VEHICLE WITH ATTENUATOR

SHORT TERM OFF RAMP CLOSURE
NOT TO SCALE

DATE

NOTES

- SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY - CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN.
   ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- 3. PCMS SHALL HAVE 4'CLEARANCE TO TRAVELED LANE: PCMS SHALL NOT BE PLACED IN GORE.
- 4. NO ENCROACHMENT ON TRAVELED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED.
- SEE COORESPONDING DETOUR PLANS DU2, DU3, DU5, DU7, DU9, AND DU10 FOR ADDITIONAL INFORMATION.

FILE NAME c:\users\hIndscl\d0292196\XL5863\_TC\_13.dgn TIME REGION NO. FED.AID PROJ.NO. DATE 12/11/2020 10 WASH PLOTTED BY hindscl DESIGNED BY C. HINDS 18C526 ENTERED BY C. HINDS CHECKED BY R. CRUMBLEY CONTRACT NO. LOCATION NO. XL5863 PROJ. ENGR. L. MOODY DATE BY REGIONAL ADM. J. WYNANDS REVISION

Washington State
Department of Transportation

DATE

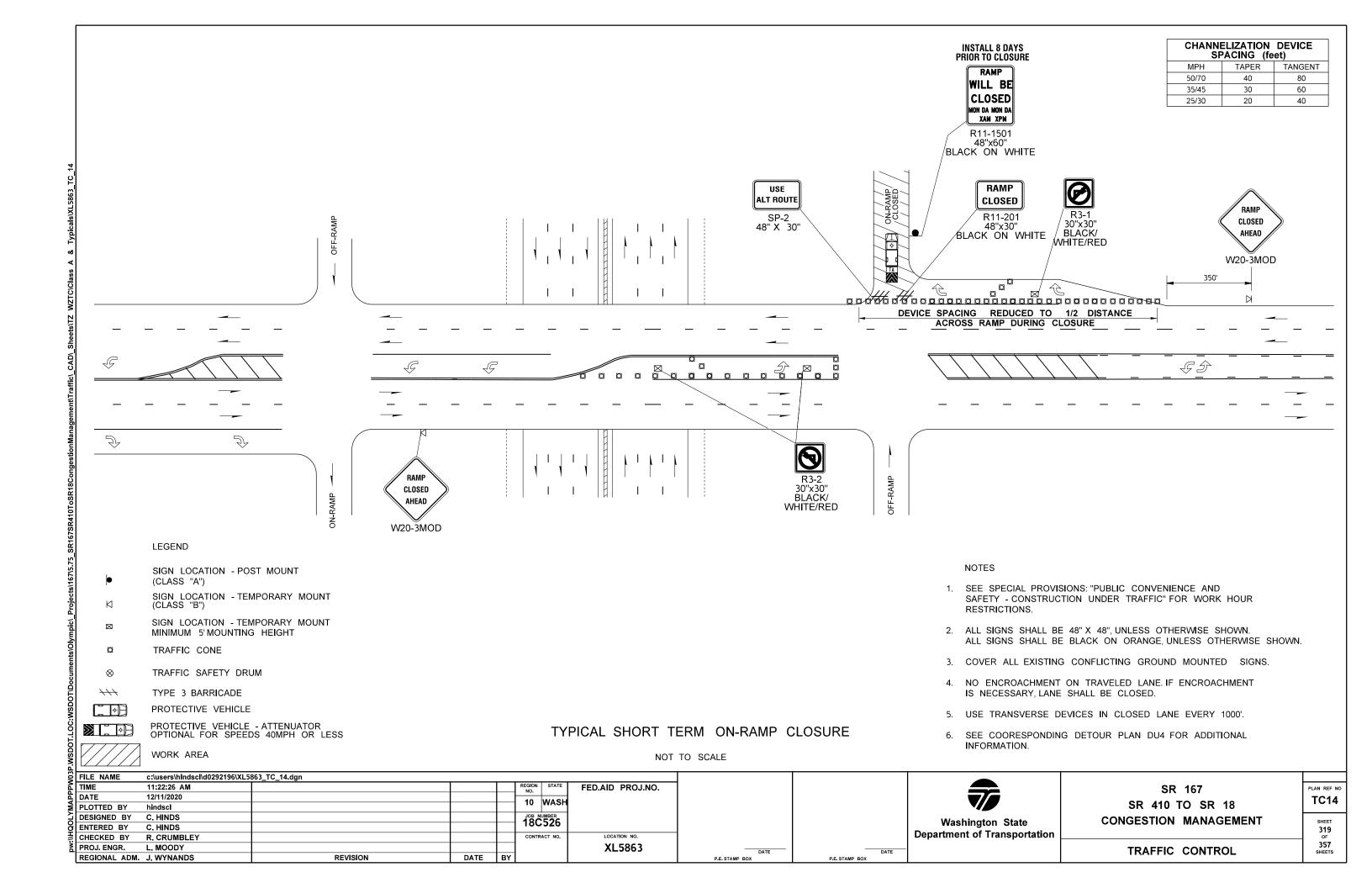
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

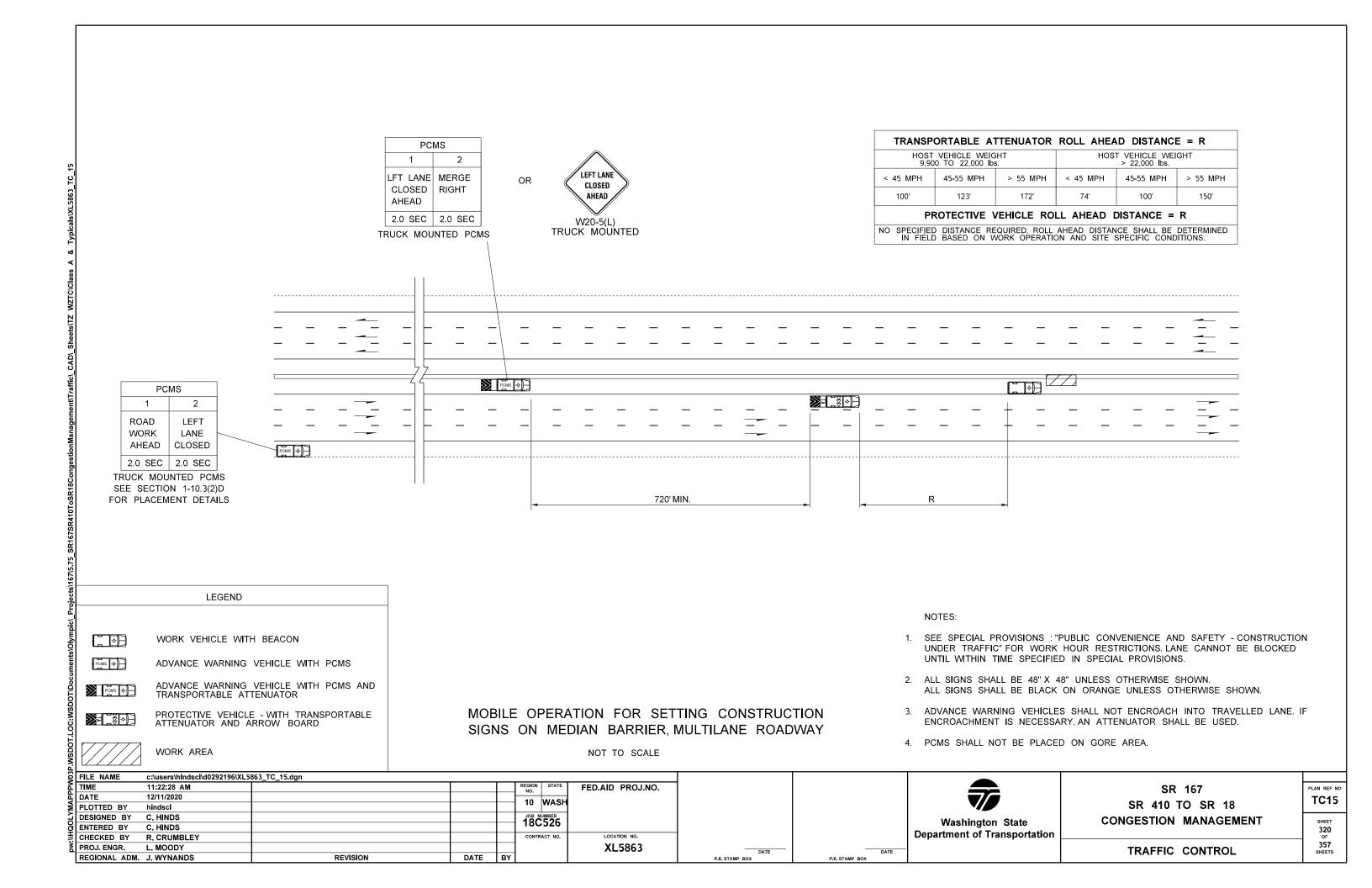
TRAFFIC CONTROL

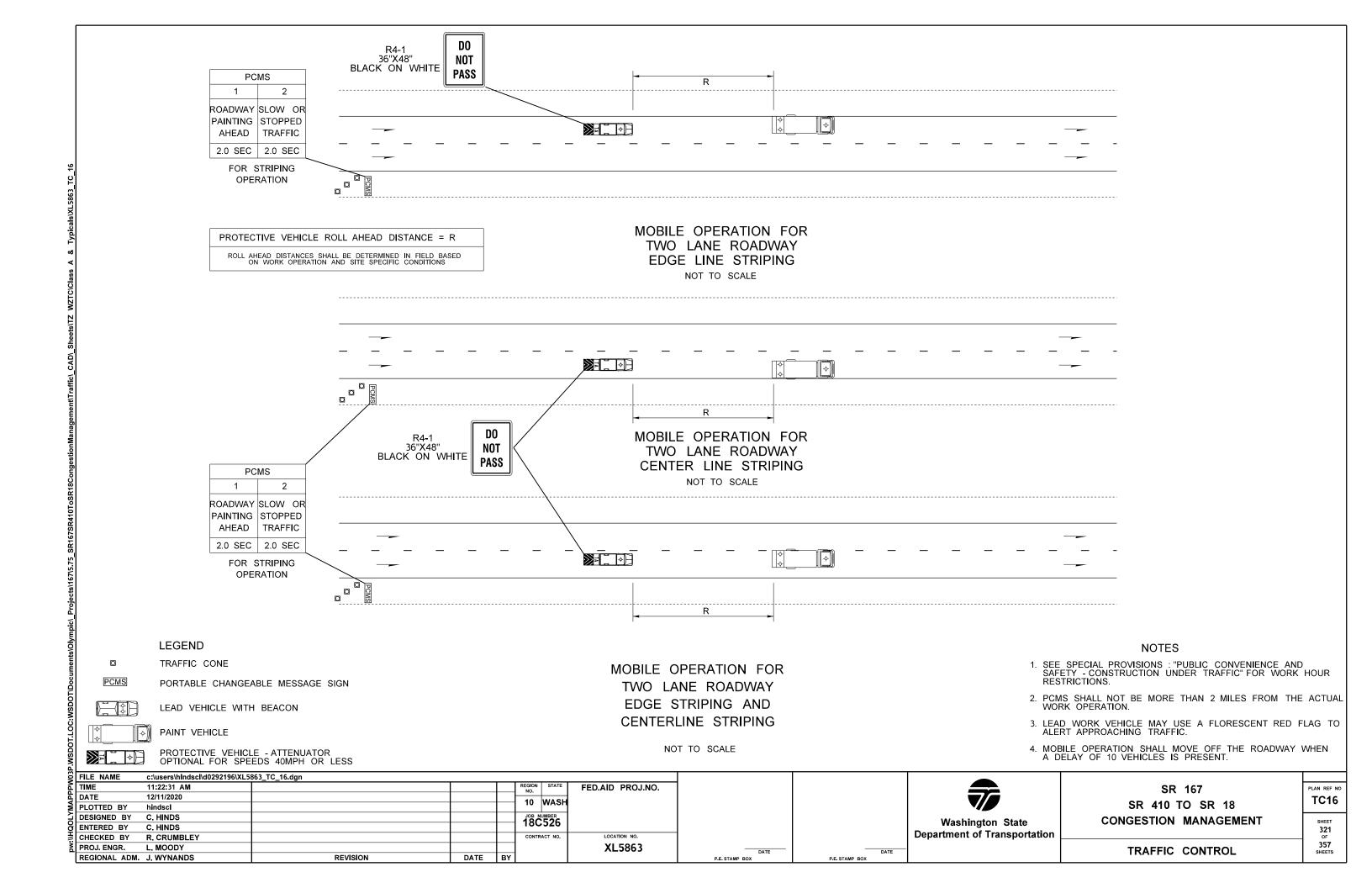
318 of 357 SHEETS

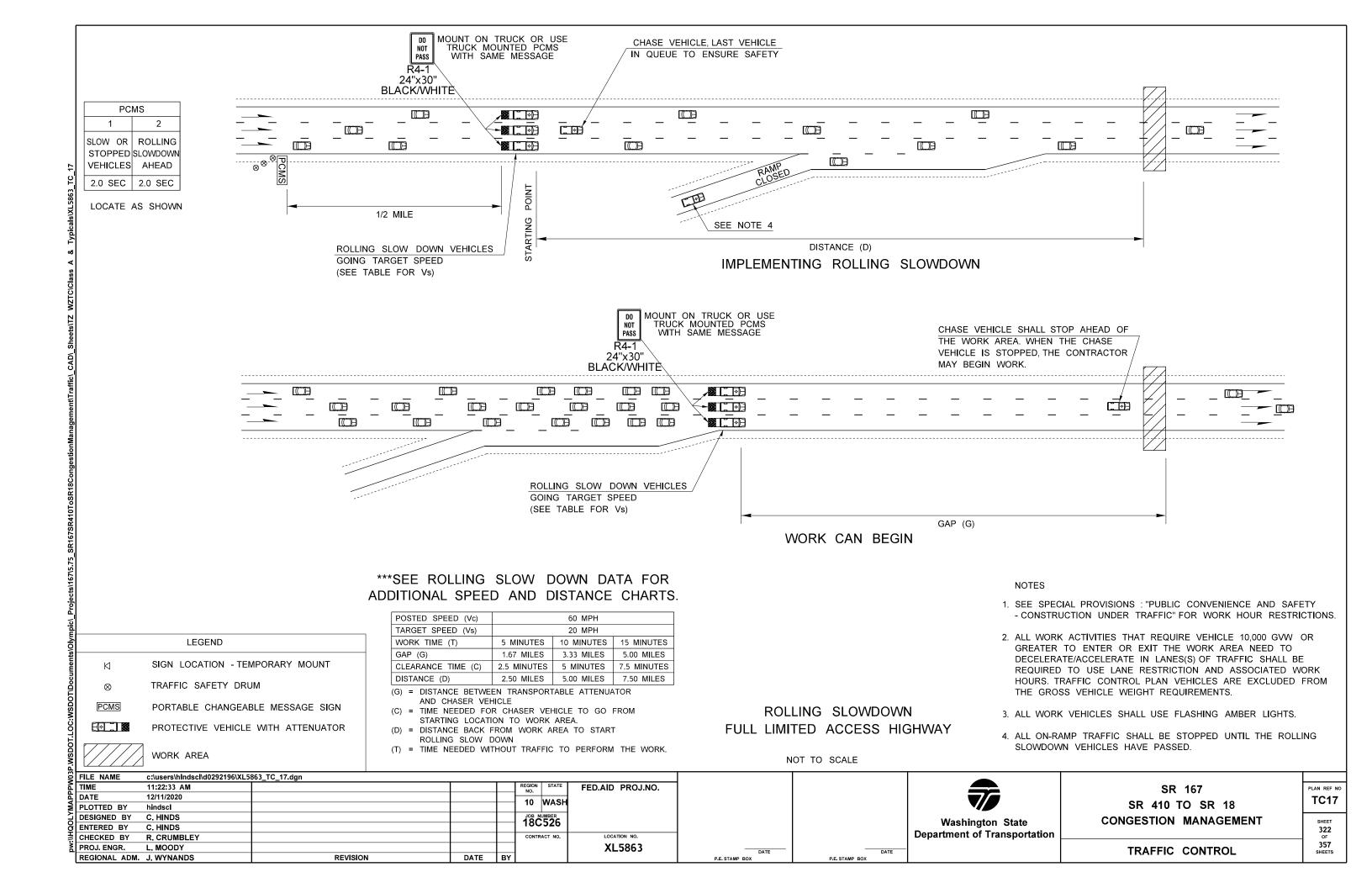
PLAN REF NO

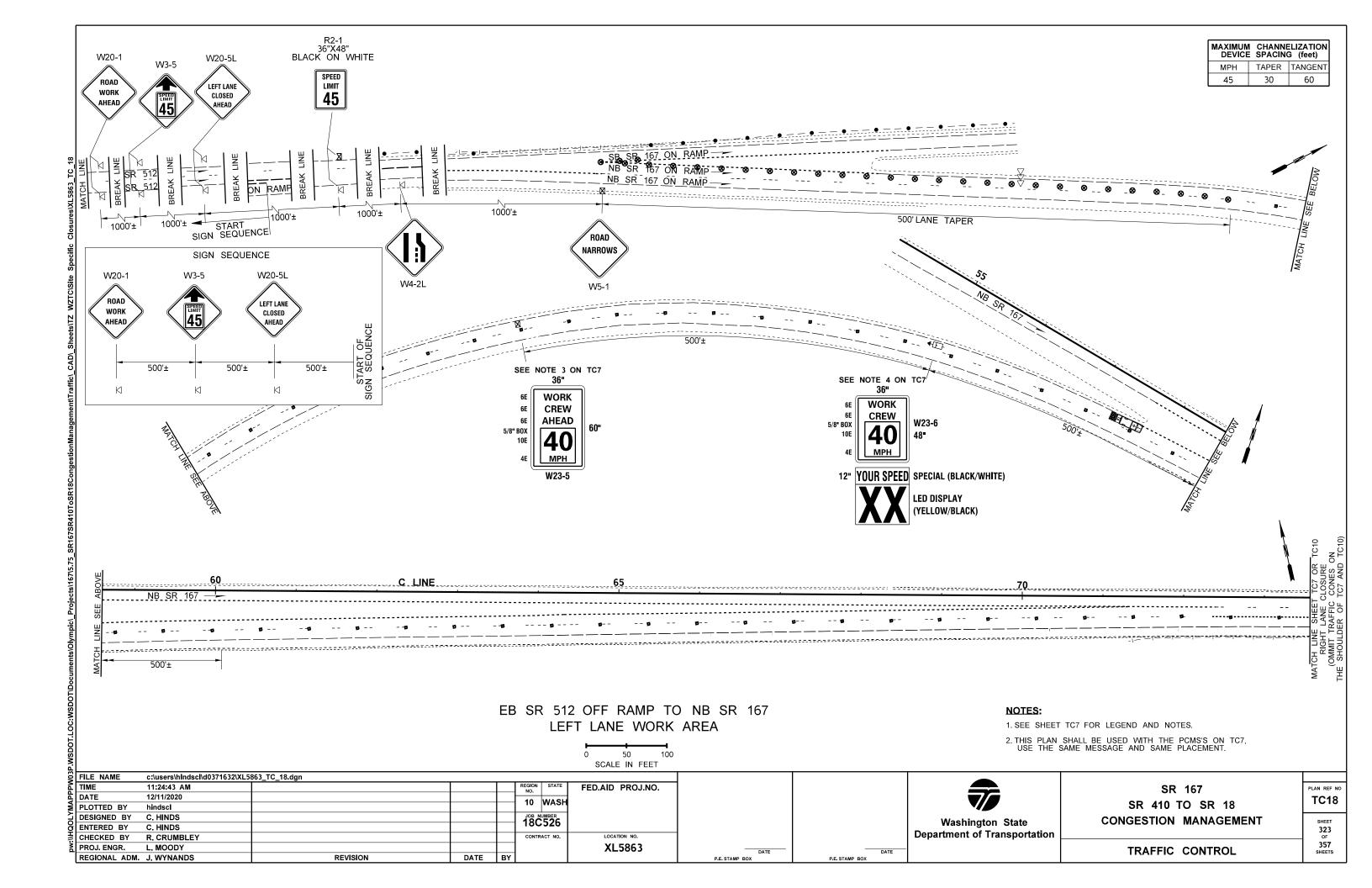
TC13

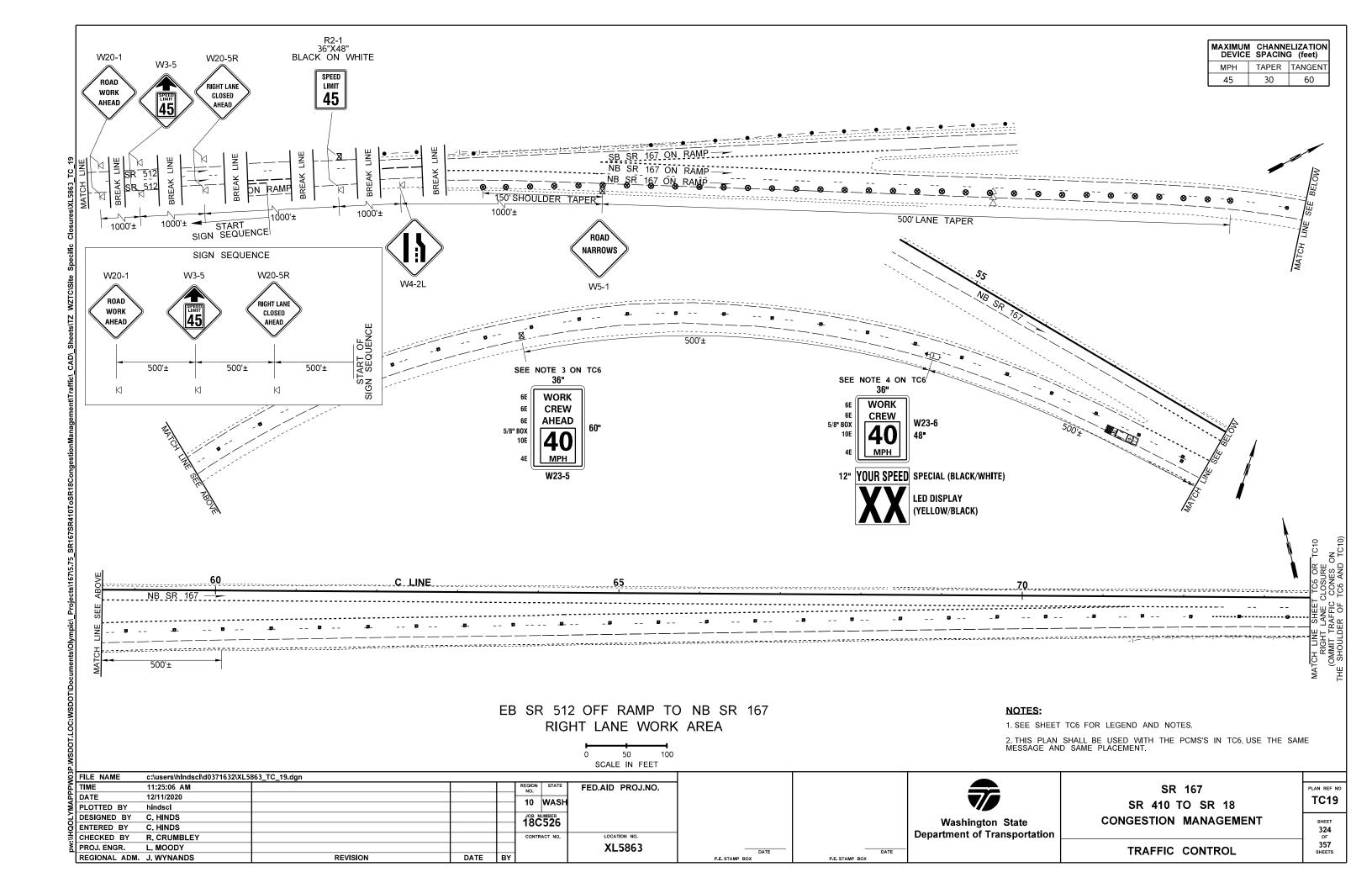


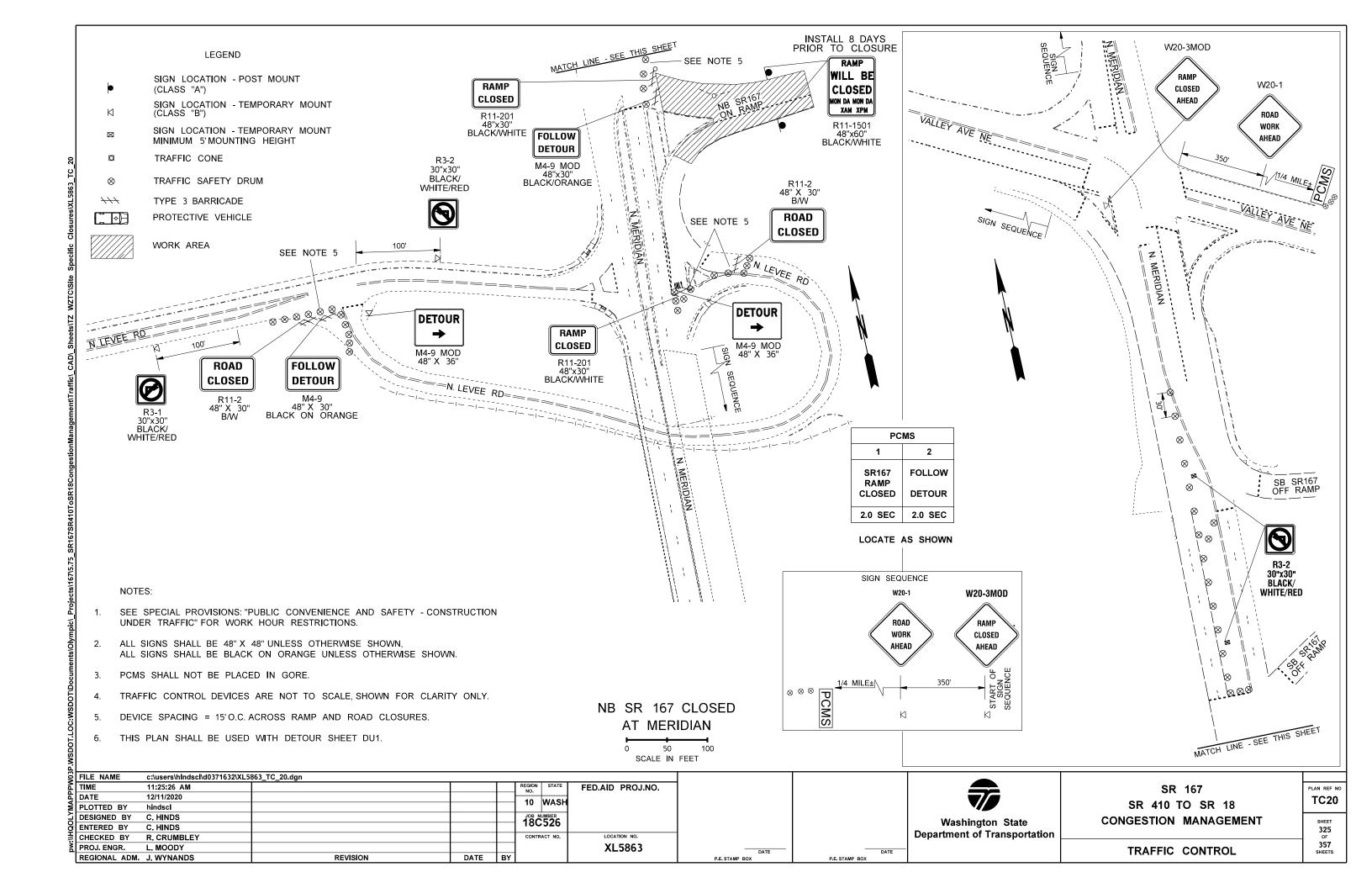


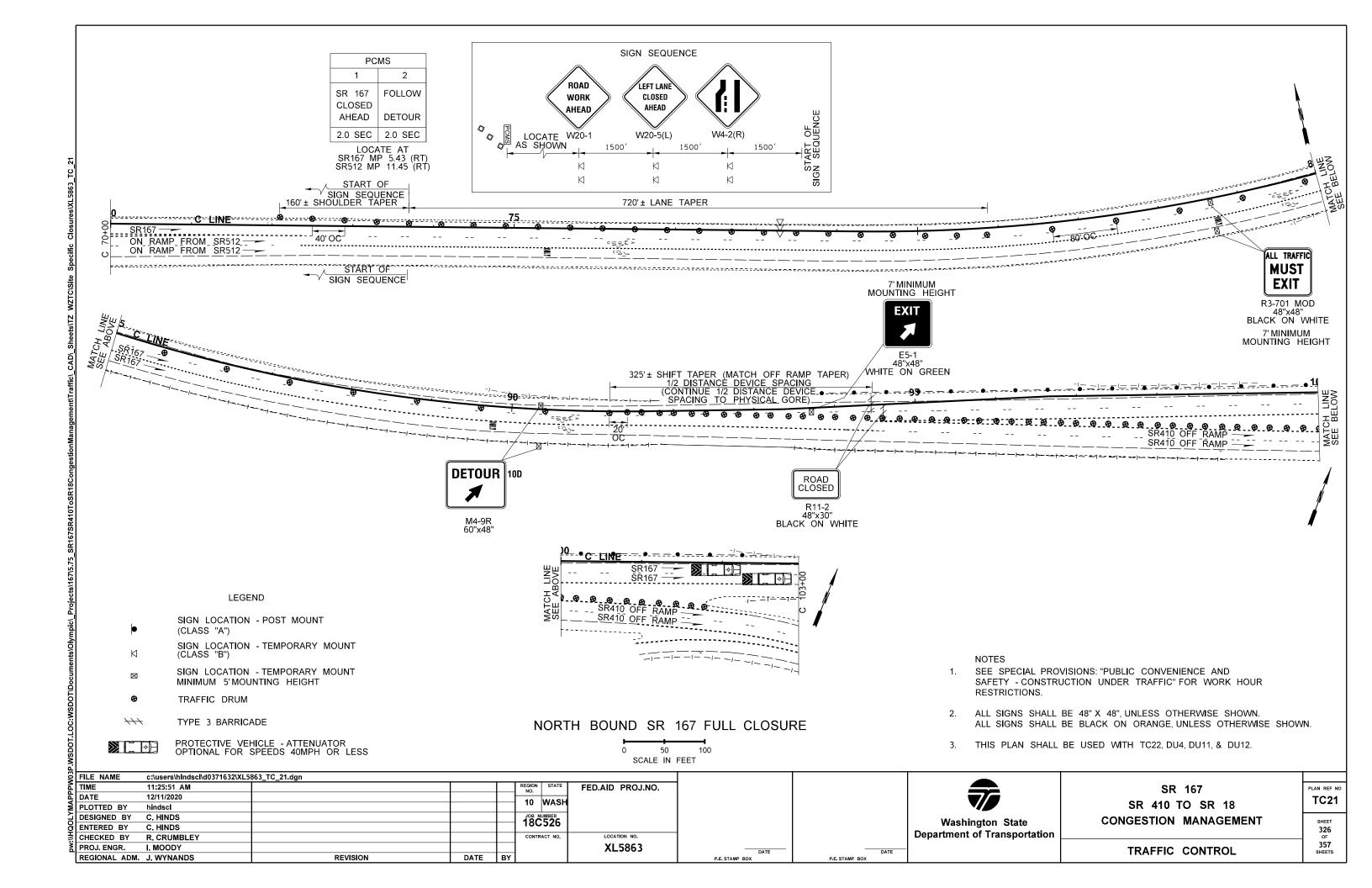


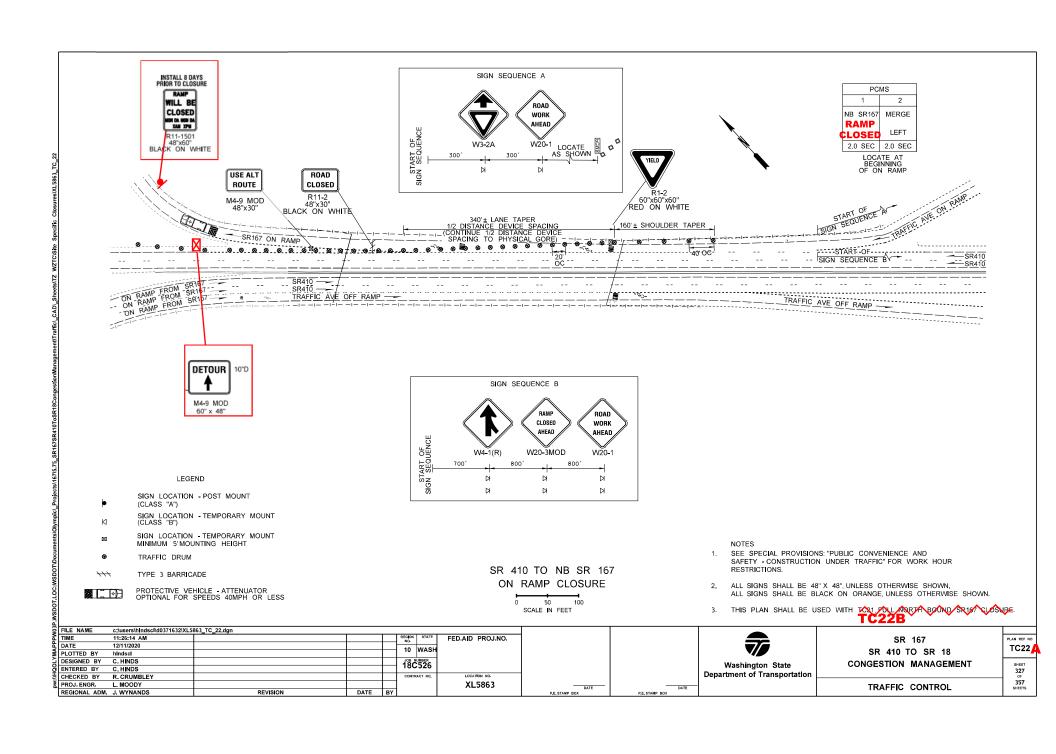


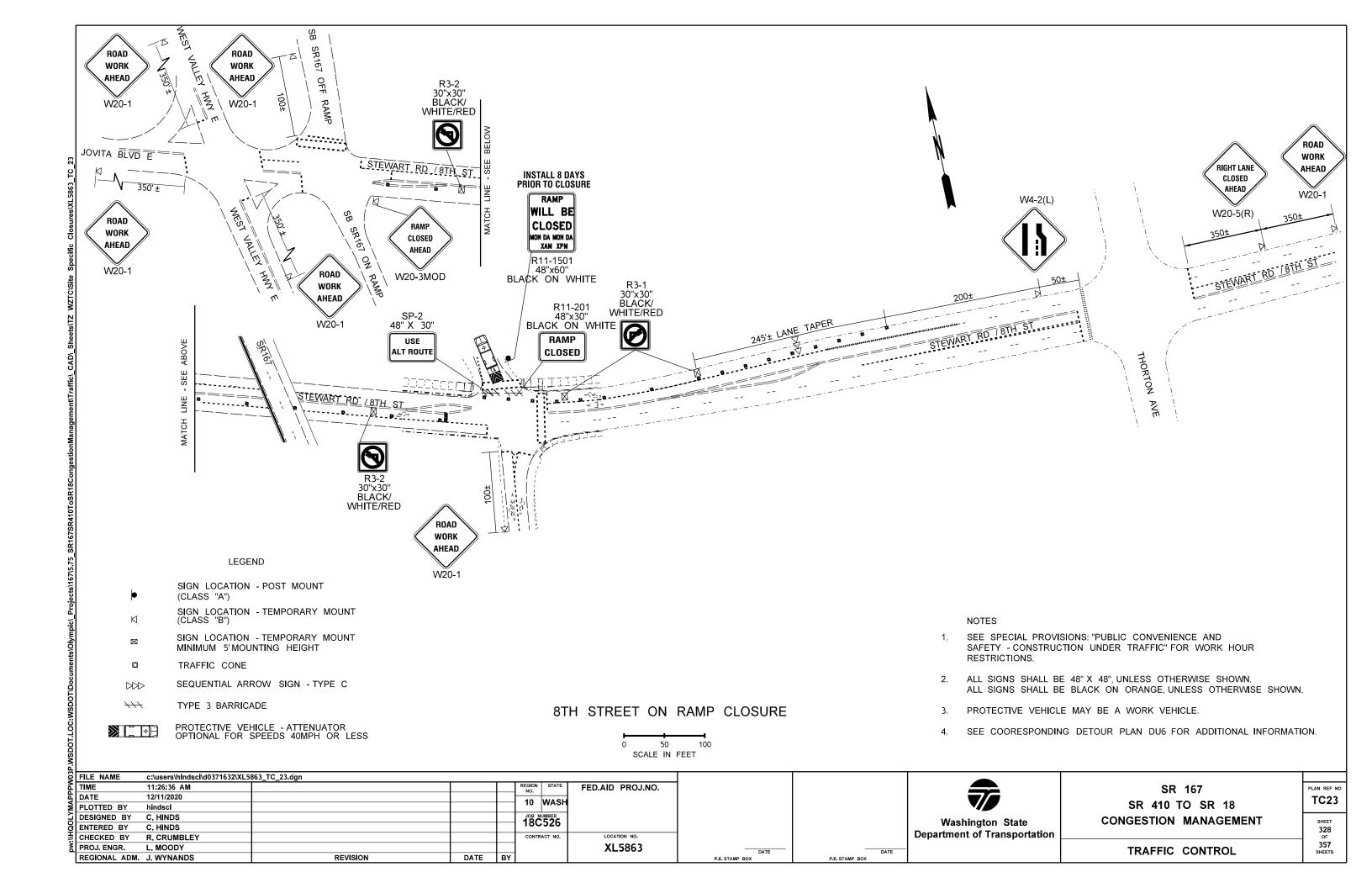


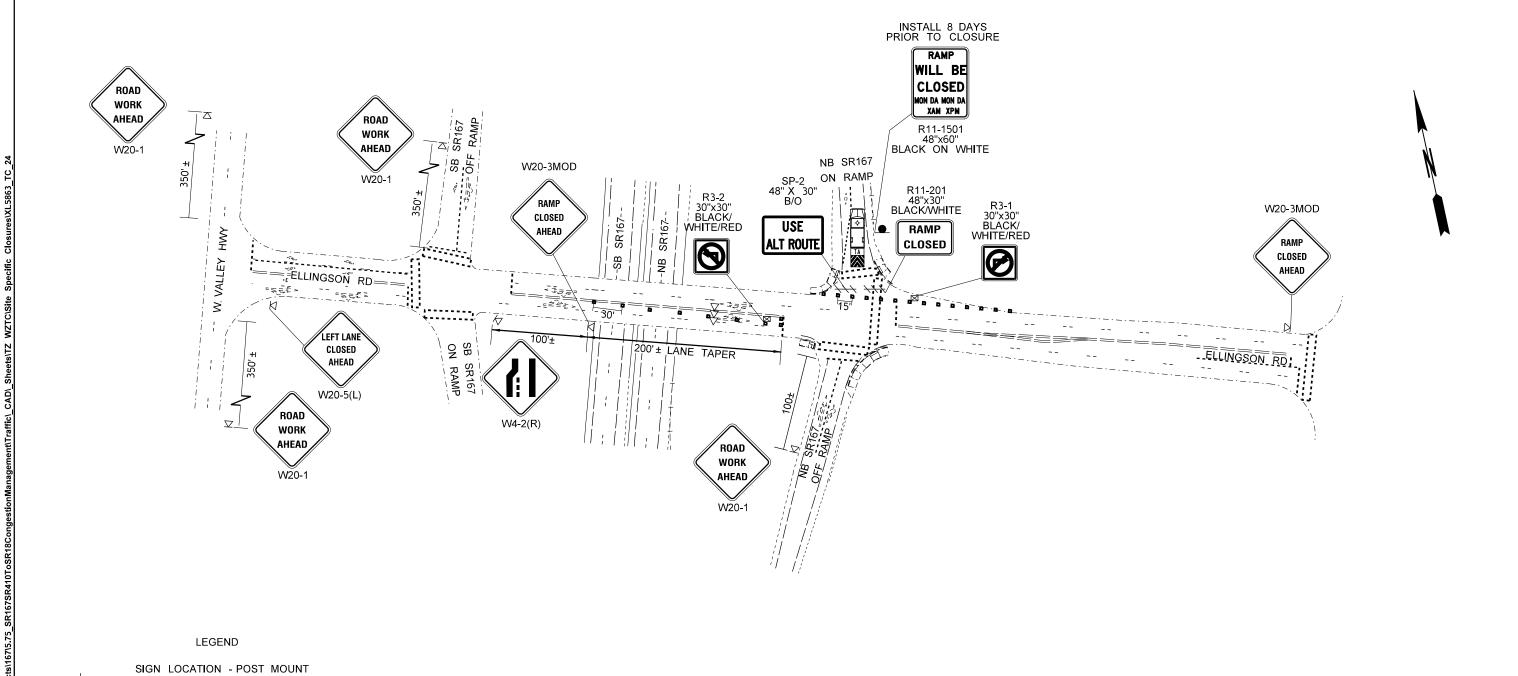












SIGN LOCATION - POST MOUNT
(CLASS "A")

SIGN LOCATION - TEMPORARY MOUNT (CLASS "B")

SIGN LOCATION - TEMPORARY MOUNT MINIMUM 5' MOUNTING HEIGHT

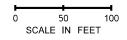
☐ TRAFFIC CONE

SEQUENTIAL ARROW SIGN - TYPE C

TYPE 3 BARRICADE

PROTECTIVE VEHICLE - ATTENUATOR OPTIONAL FOR SPEEDS 40MPH OR LESS

## ELLINGSON RD ON RAMP CLOSURE



## NOTES

- 1. SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN.
   ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- 3. PROTECTIVE VEHICLE MAY BE A WORK VEHICLE.
- 4. SEE COORESPONDING DETOUR PLAN DU8 FOR ADDITIONAL INFORMATION.

S	FILE NAME	c:\users\hindscl\d0371632\XL5	5863_TC_24.dgn							1	
2	TIME	11:27:00 AM				REGION	STATE	FED.AID PROJ.NO.			
9	DATE	12/11/2020				10	WASH				
Ž	PLOTTED BY	hindscl				יי ן	WASH				
<u> </u>	DESIGNED BY	C. HINDS				ЈОВ <b>40</b>	NUMBER C526				Washi
ğ	ENTERED BY	C. HINDS				יסין	5326				
1	CHECKED BY	R. CRUMBLEY				CONT	RACT NO.	LOCATION NO.			Department
Š	PROJ. ENGR.	L. MOODY						XL5863	DATE	——————————————————————————————————————	
	REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY				P.E. STAMP BOX	P.E. STAMP BOX	



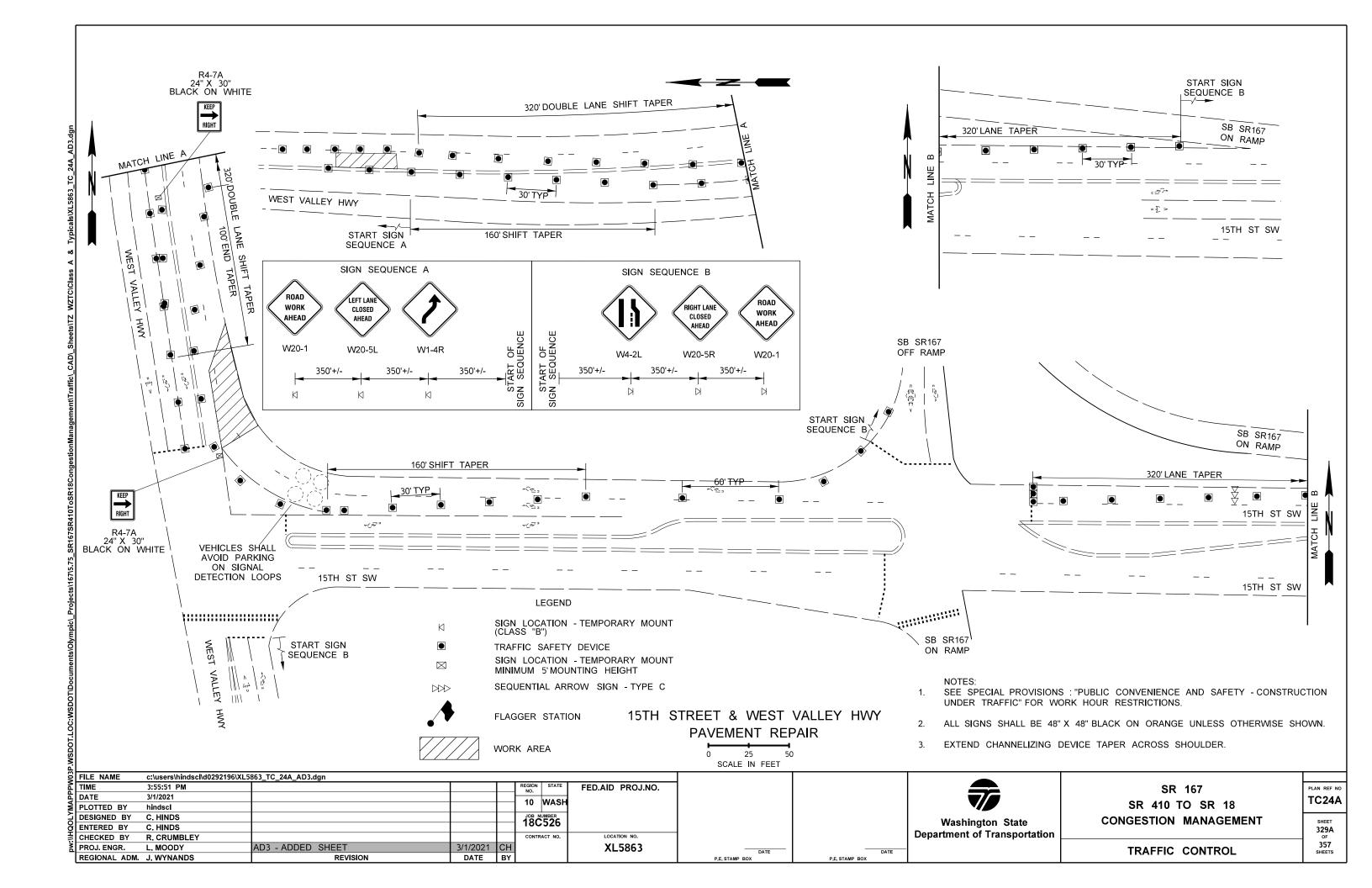
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

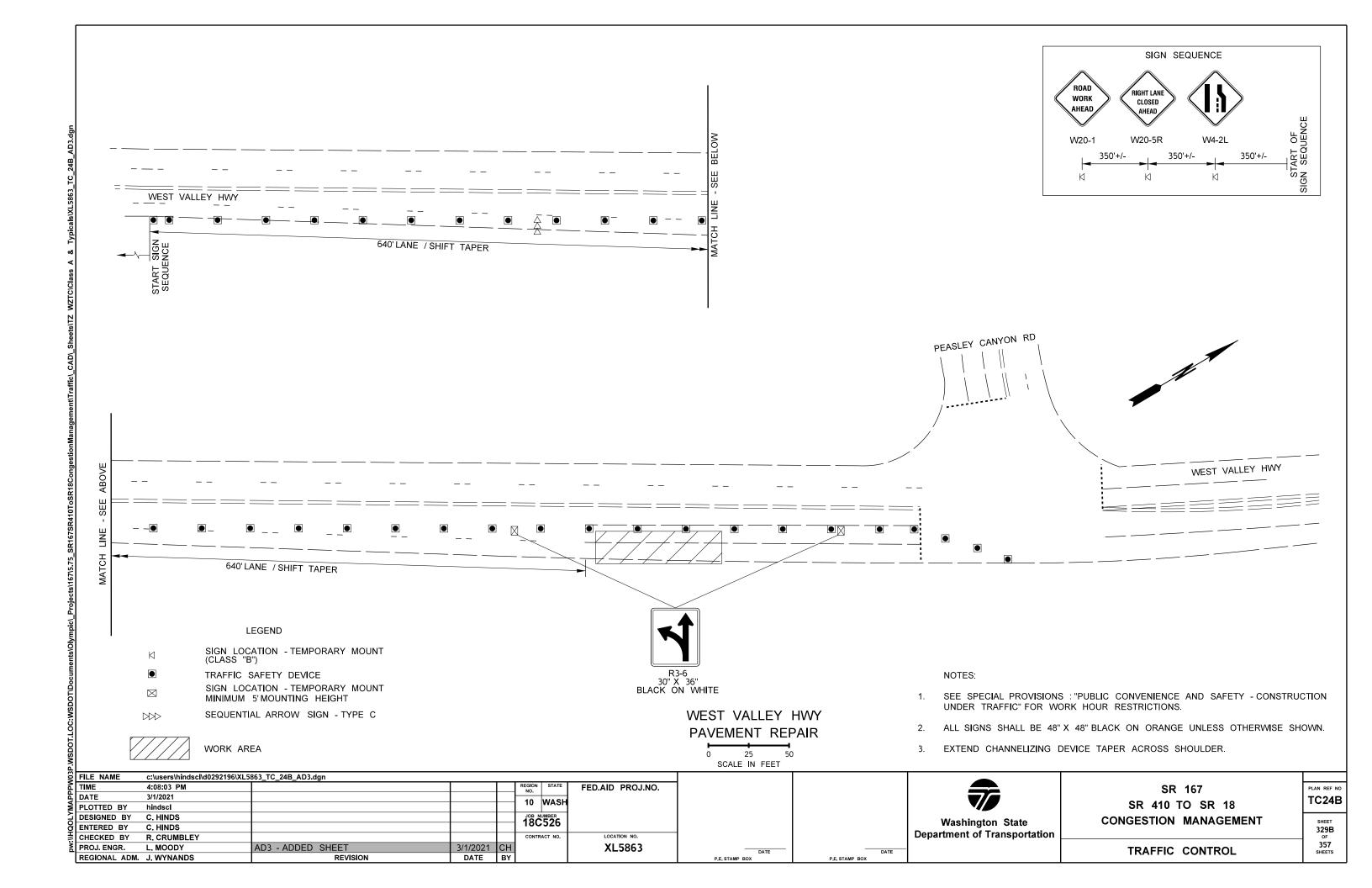
TC24

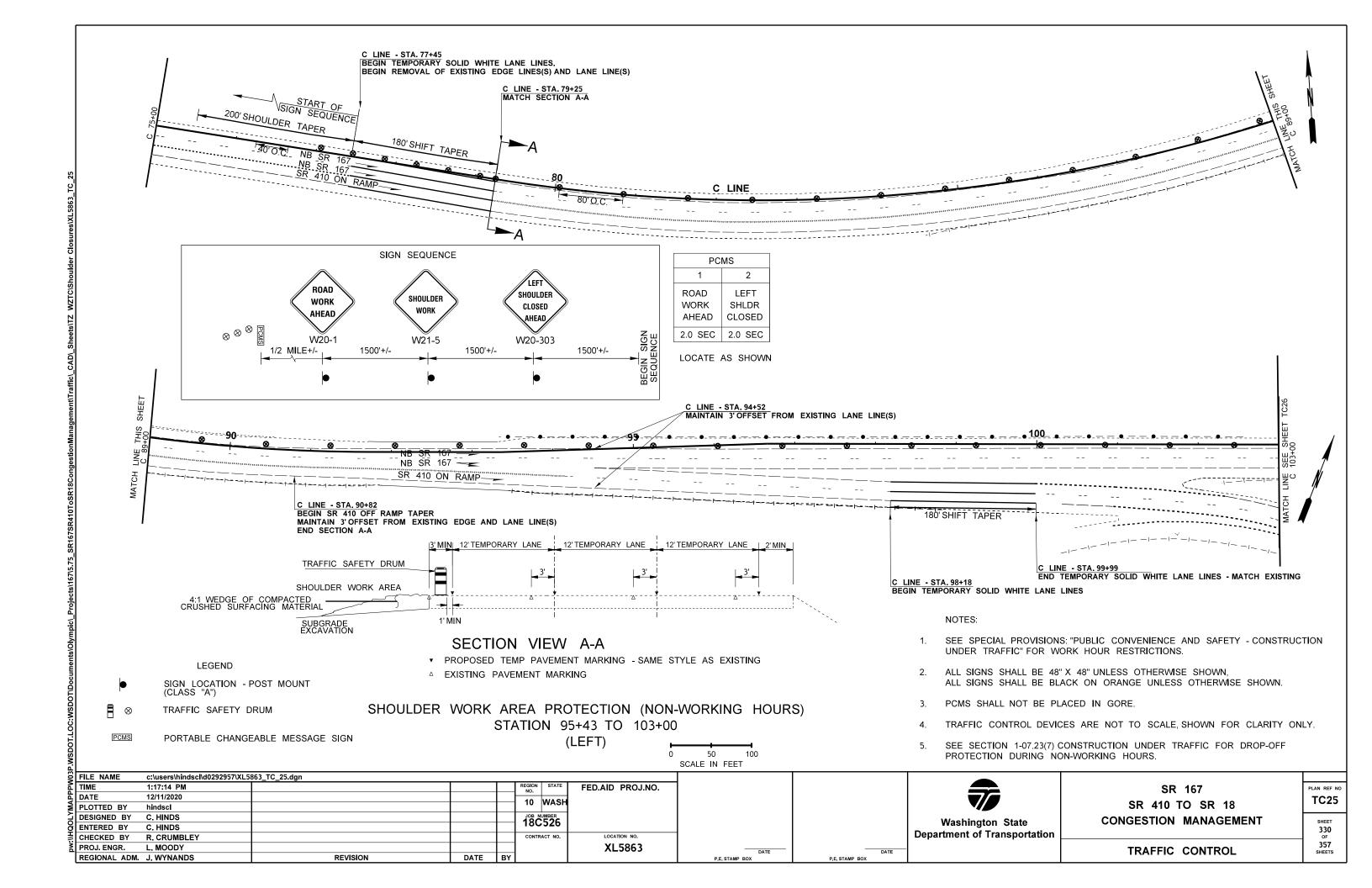
329

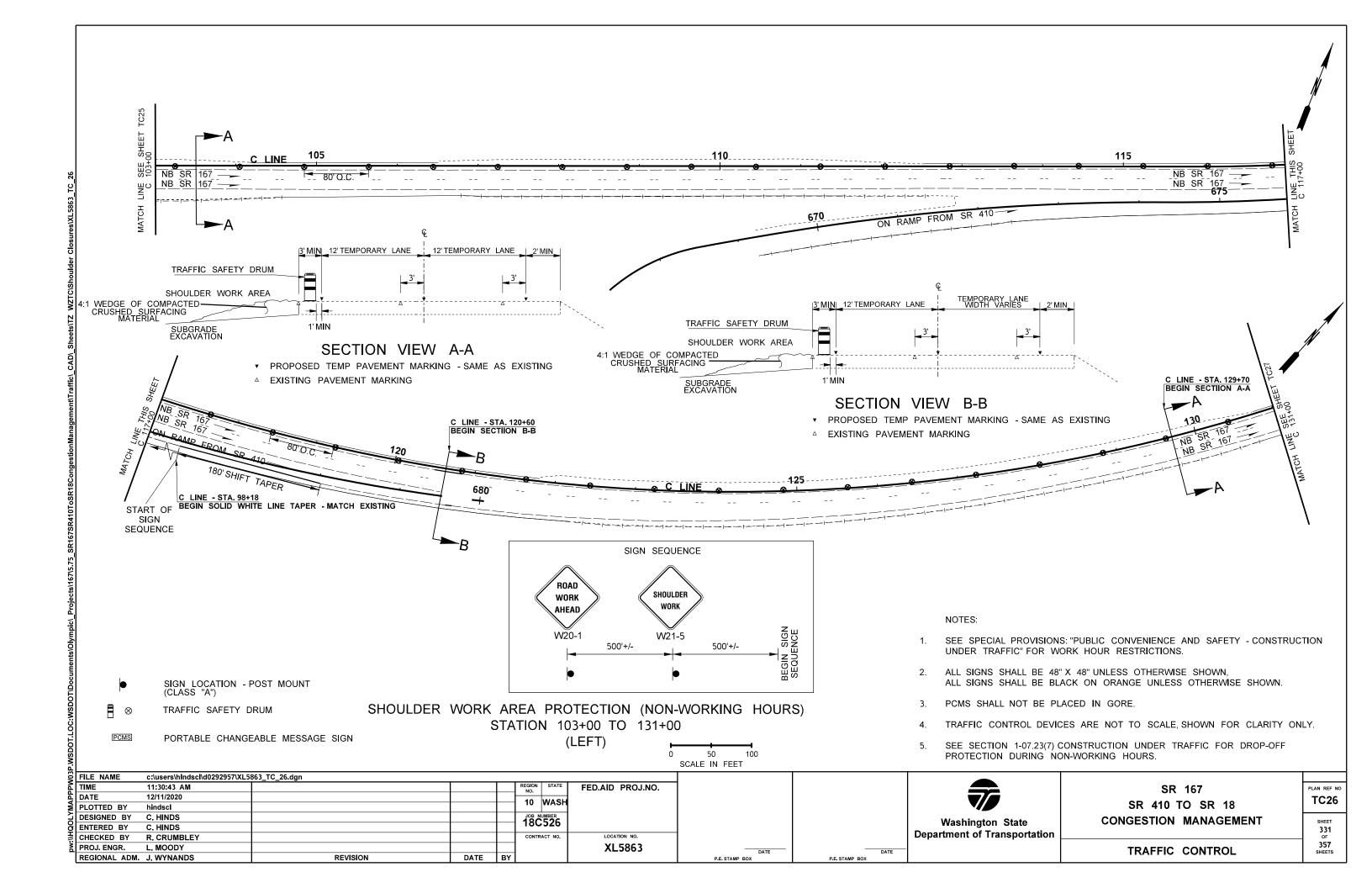
357 SHEETS

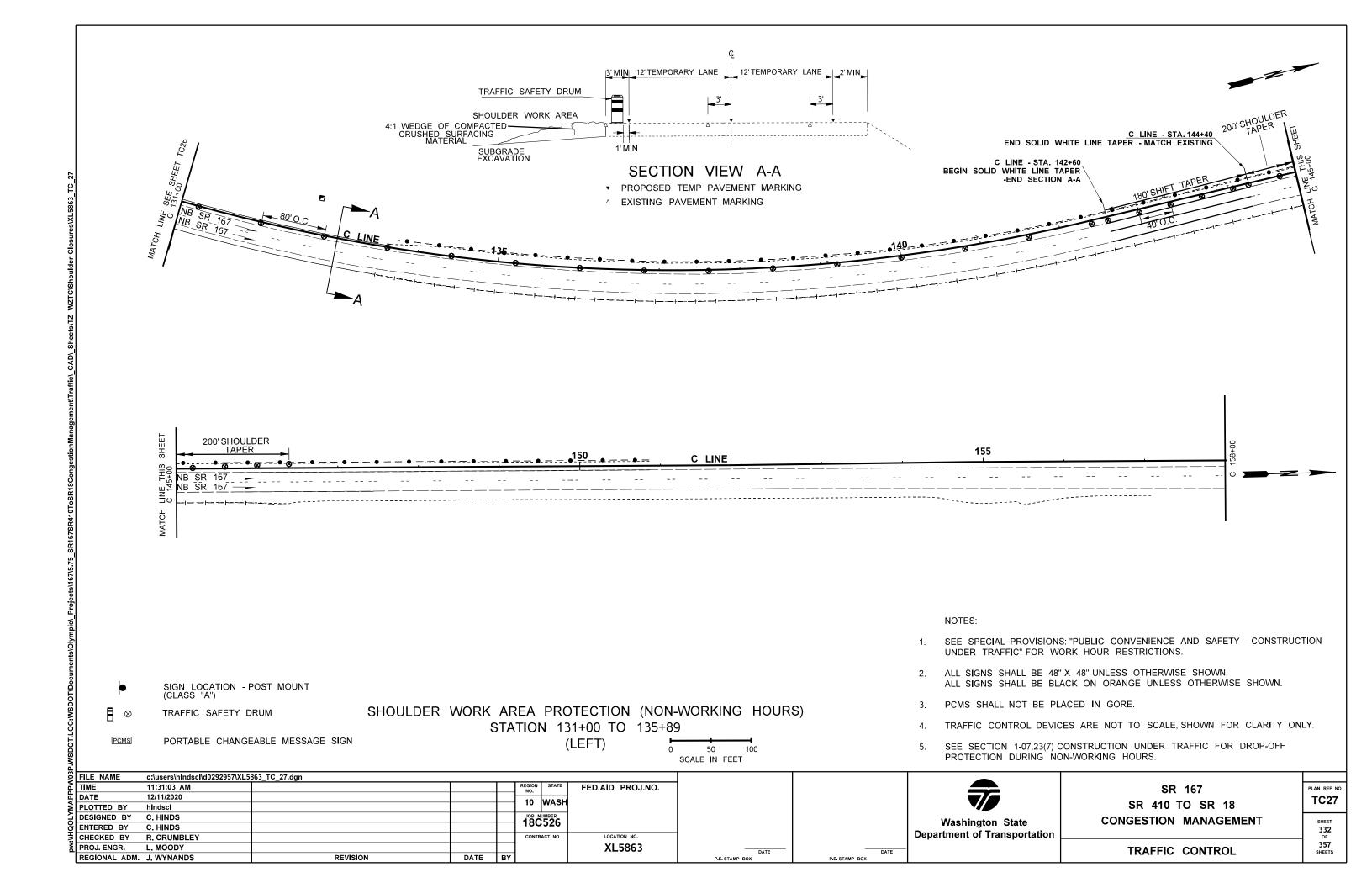
TRAFFIC CONTROL

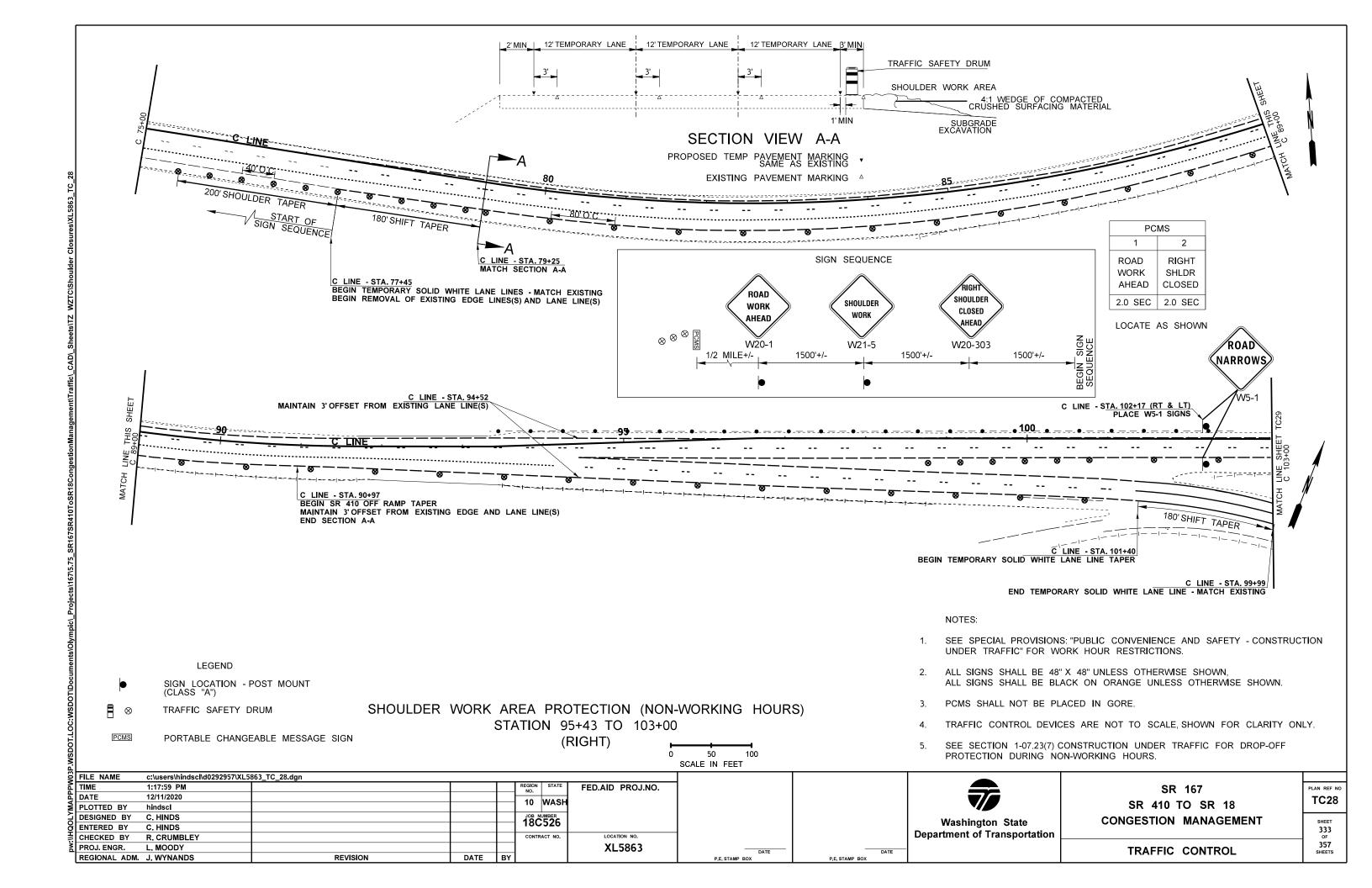


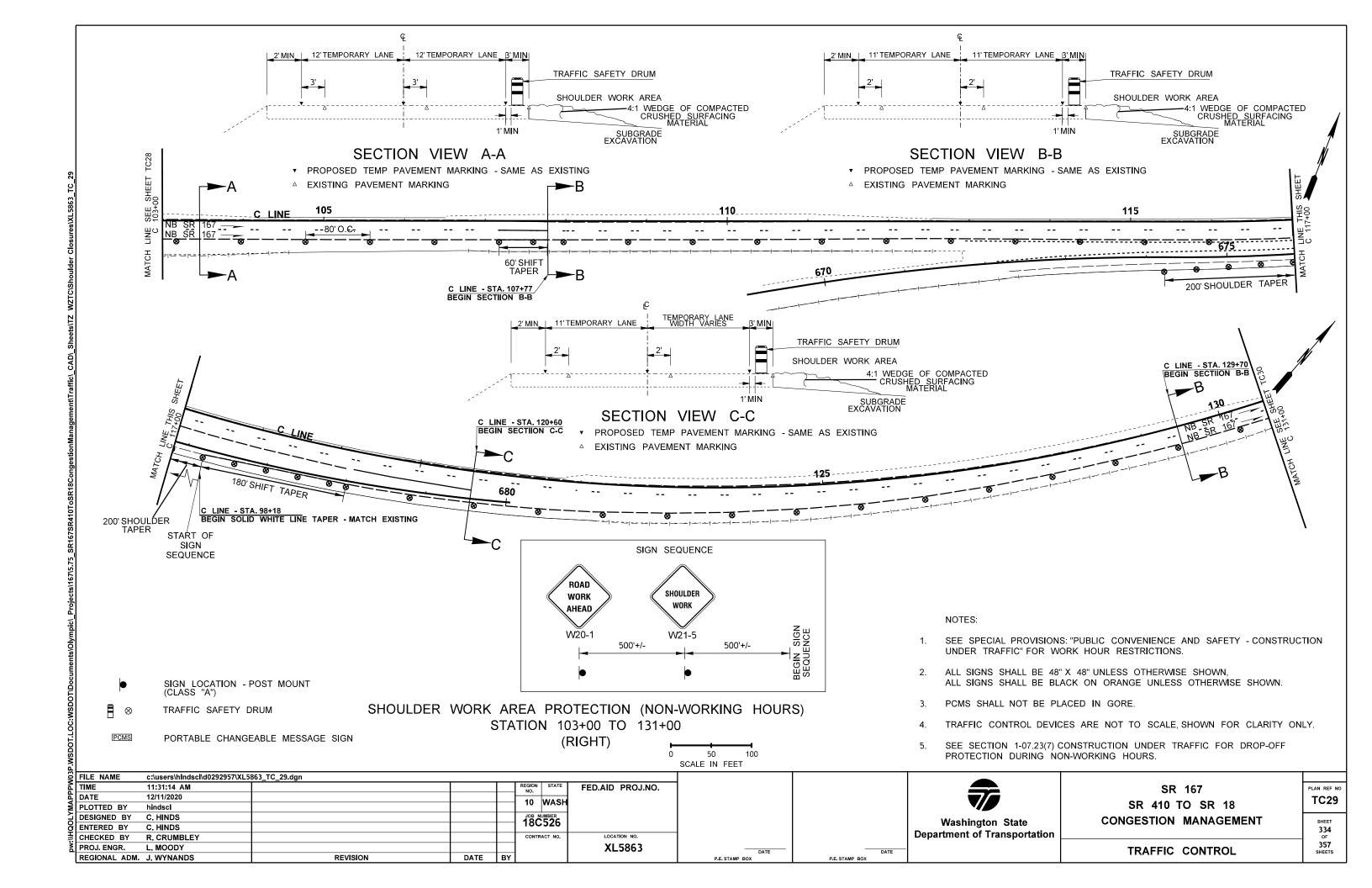


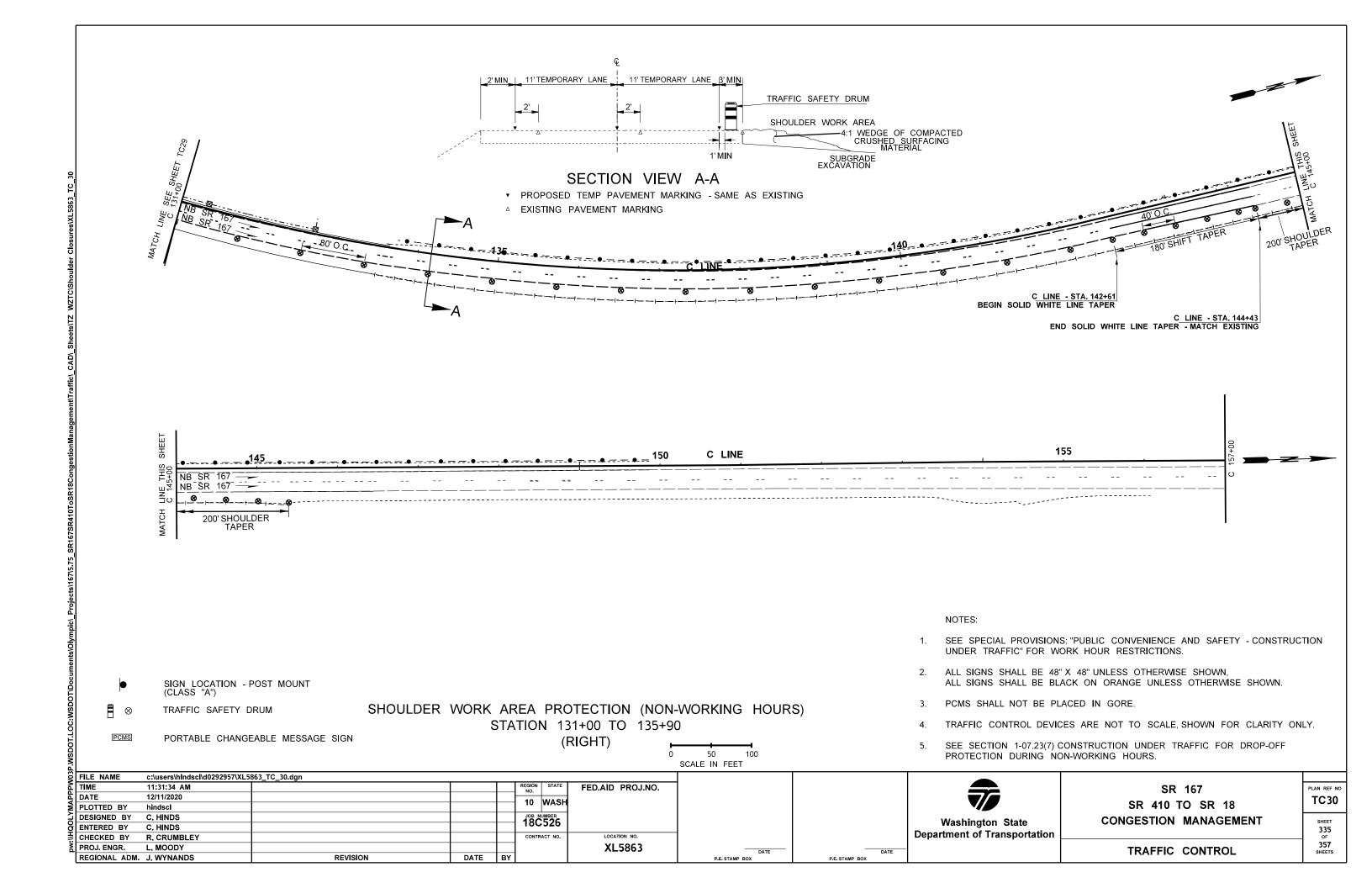


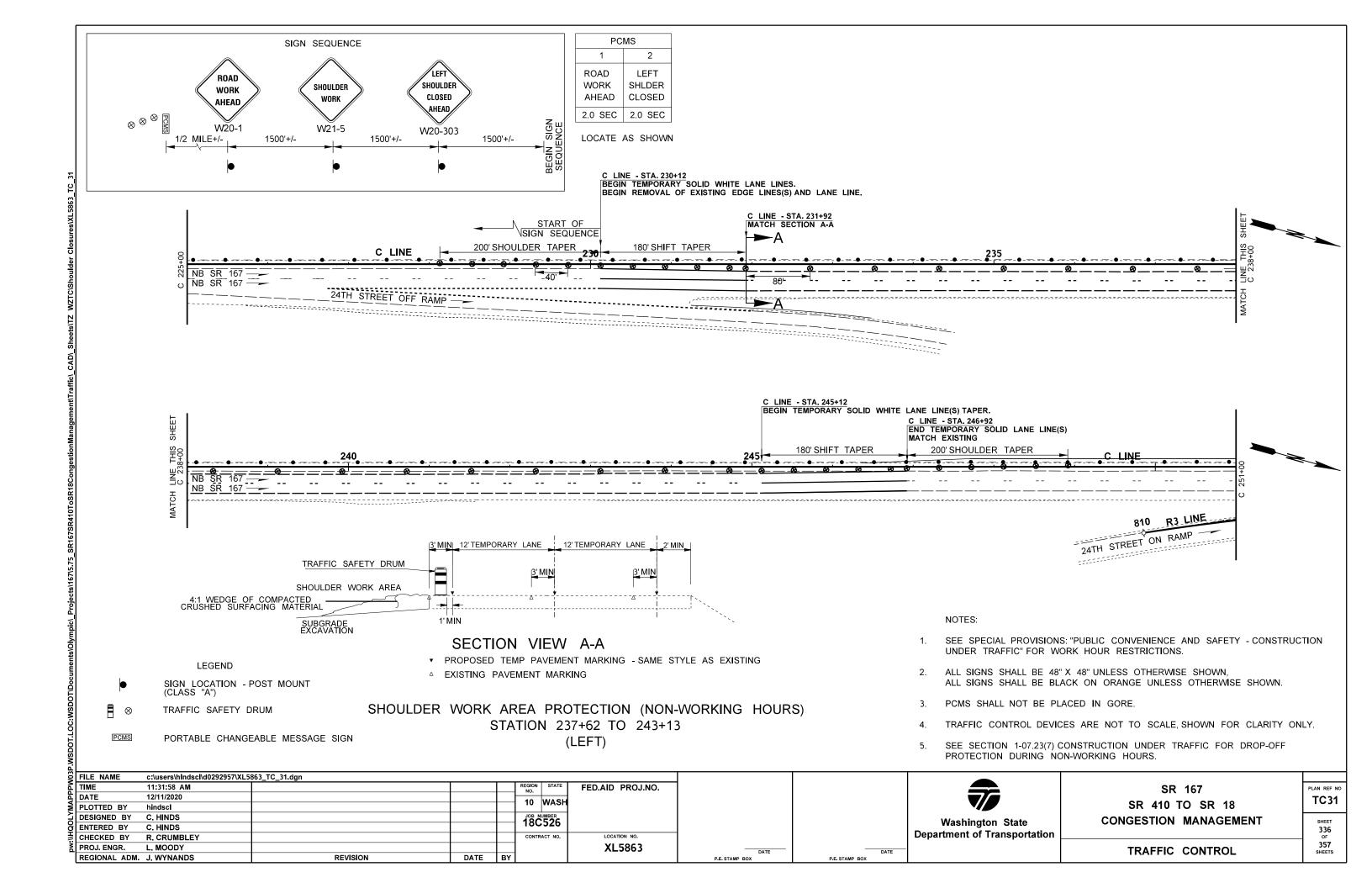


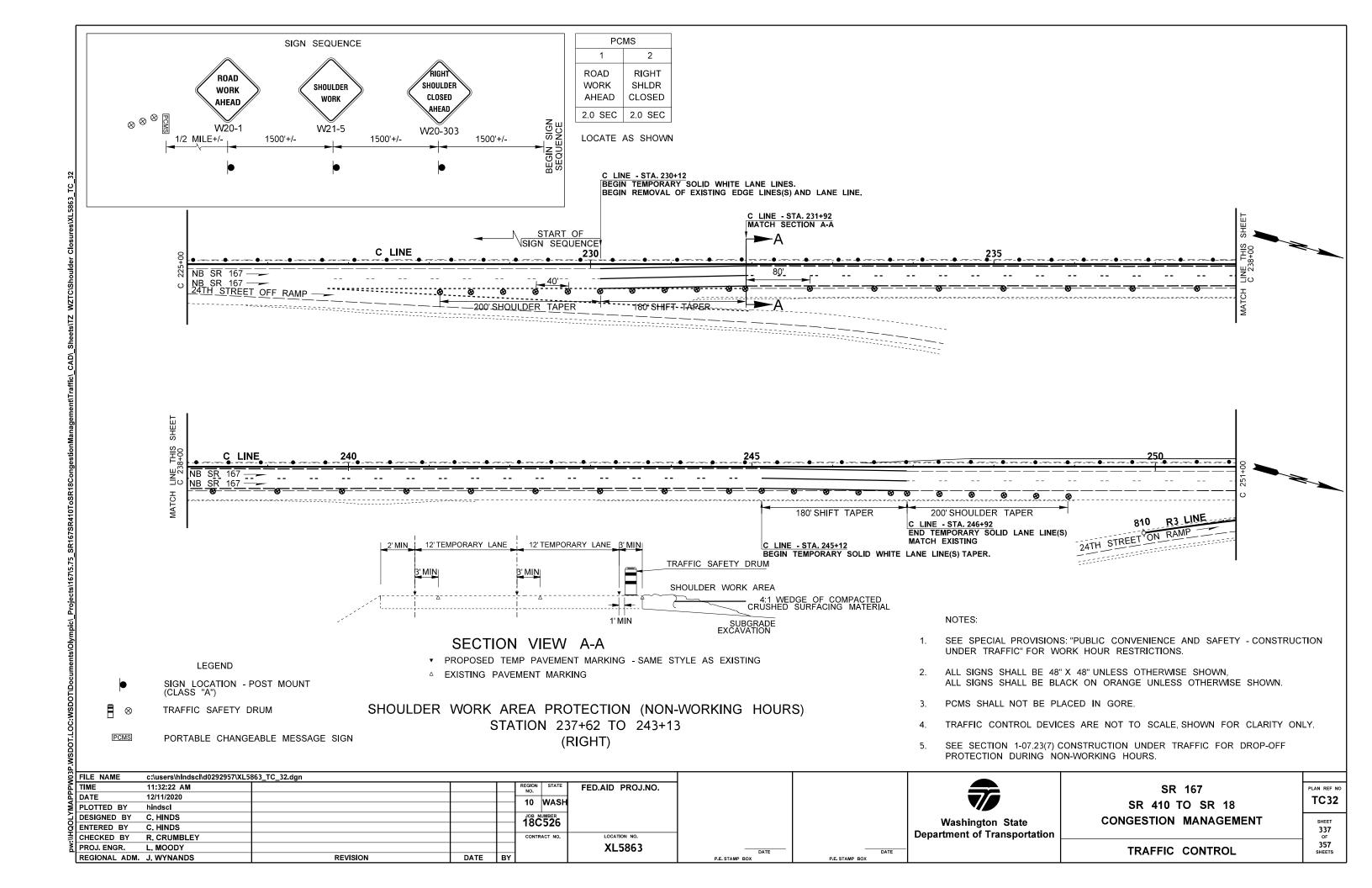


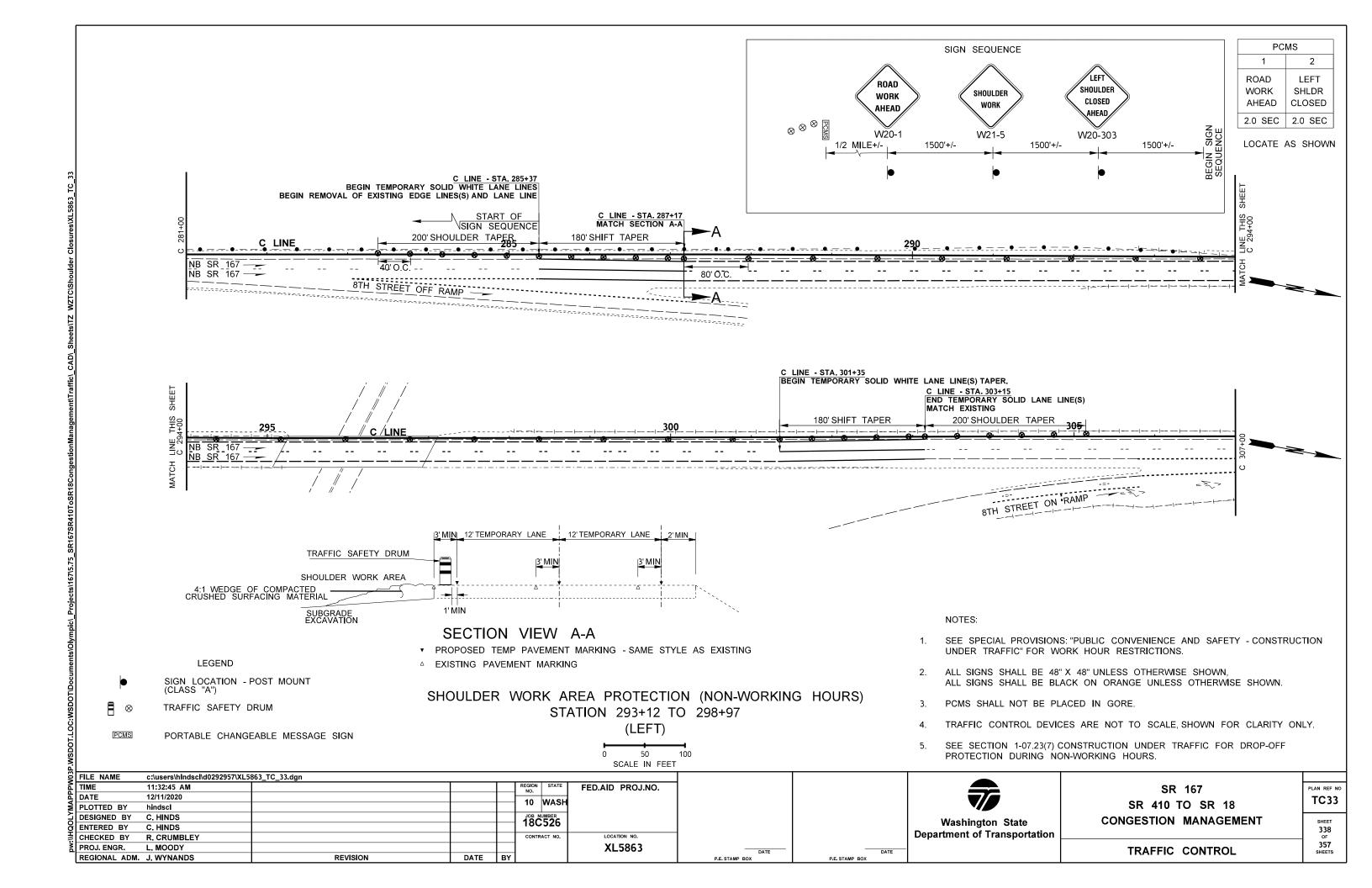


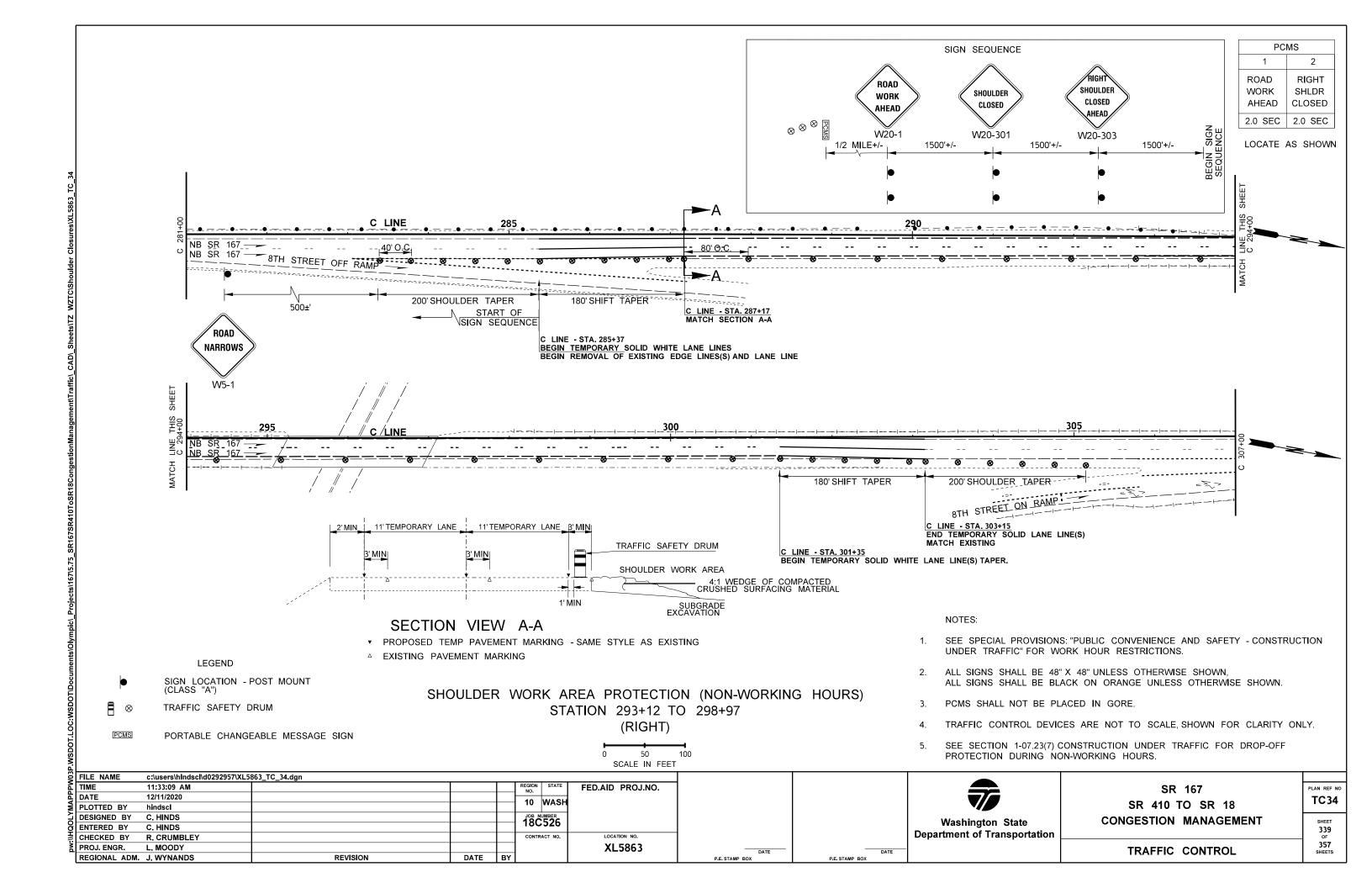


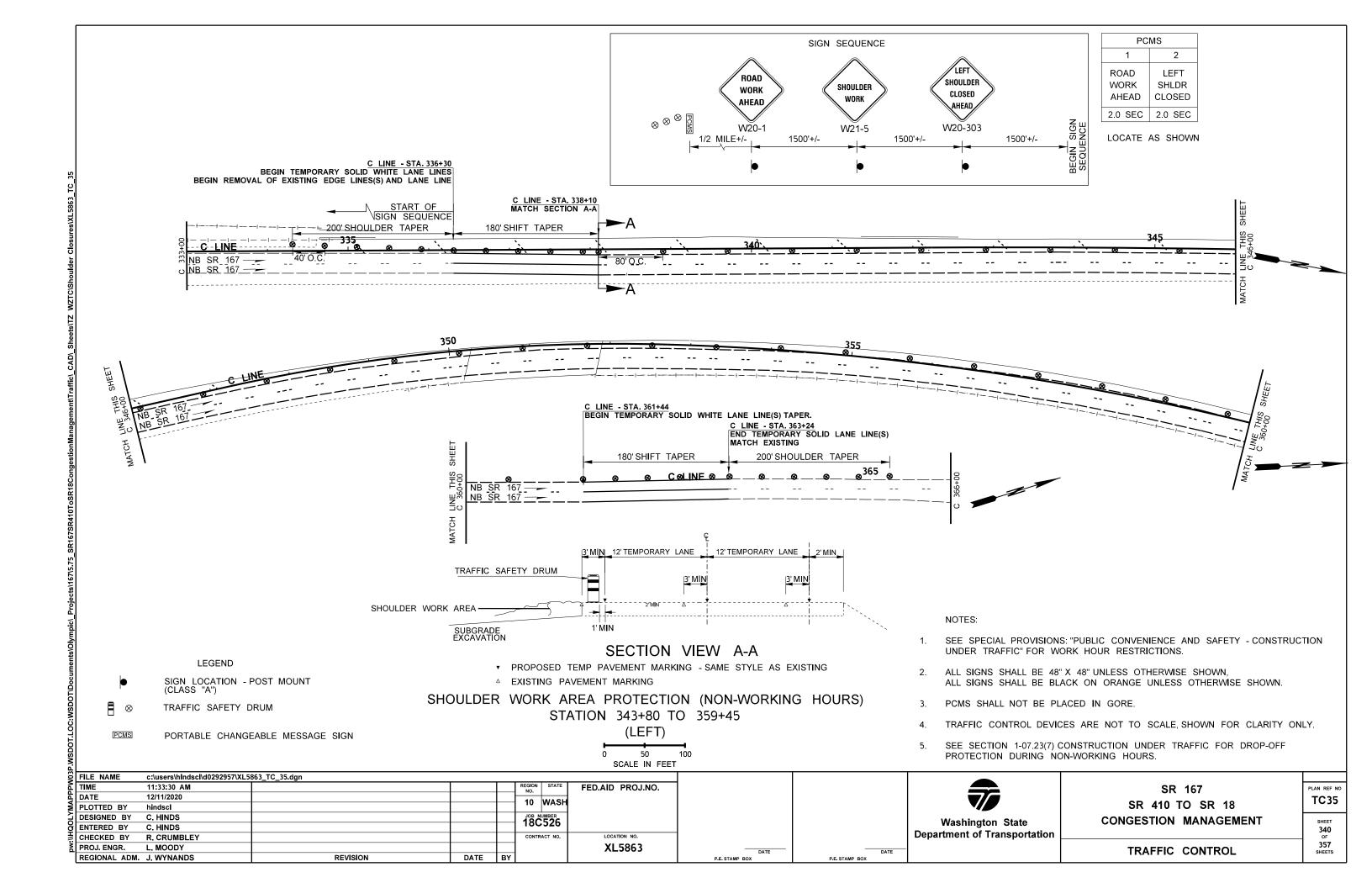


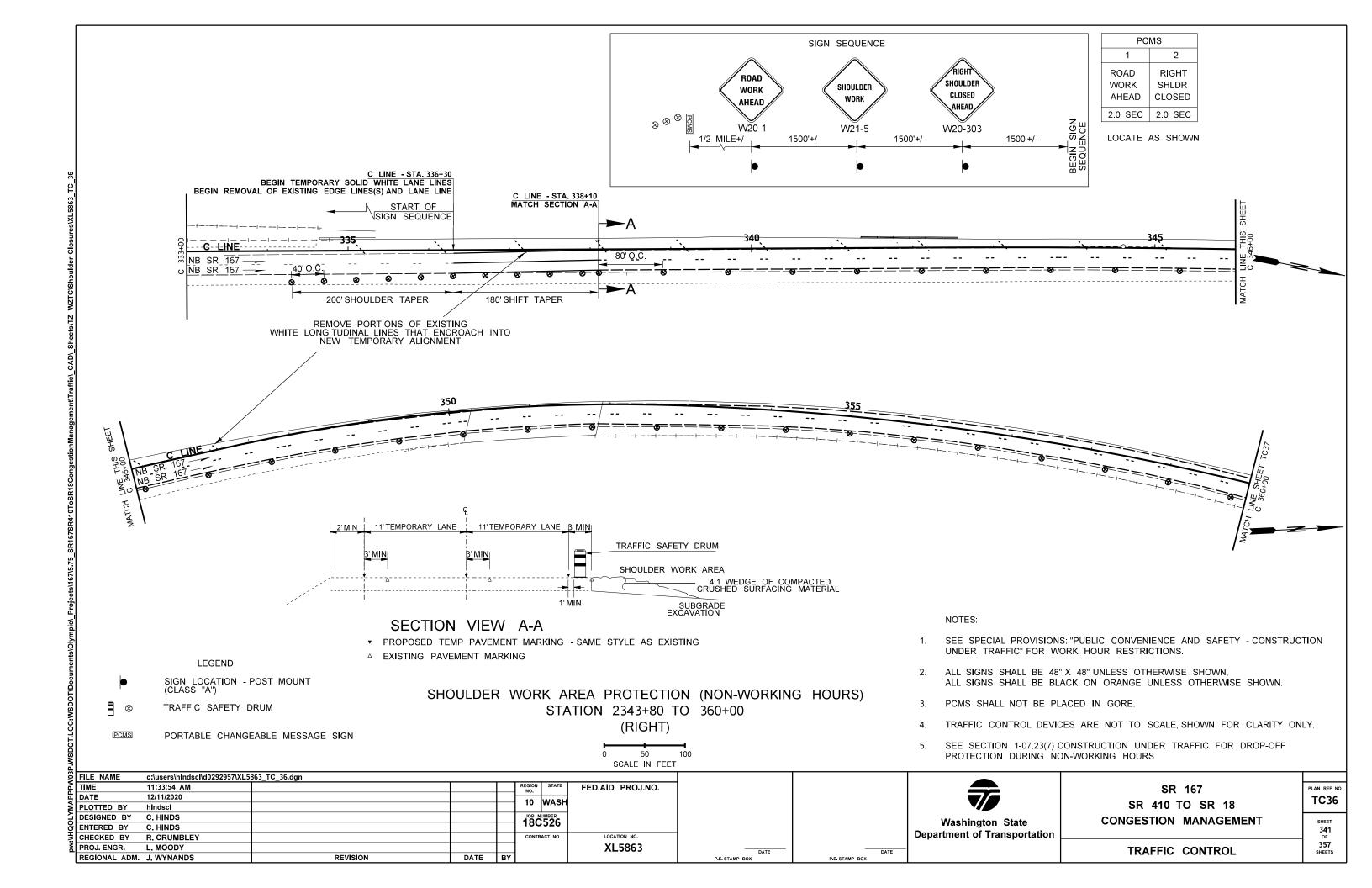


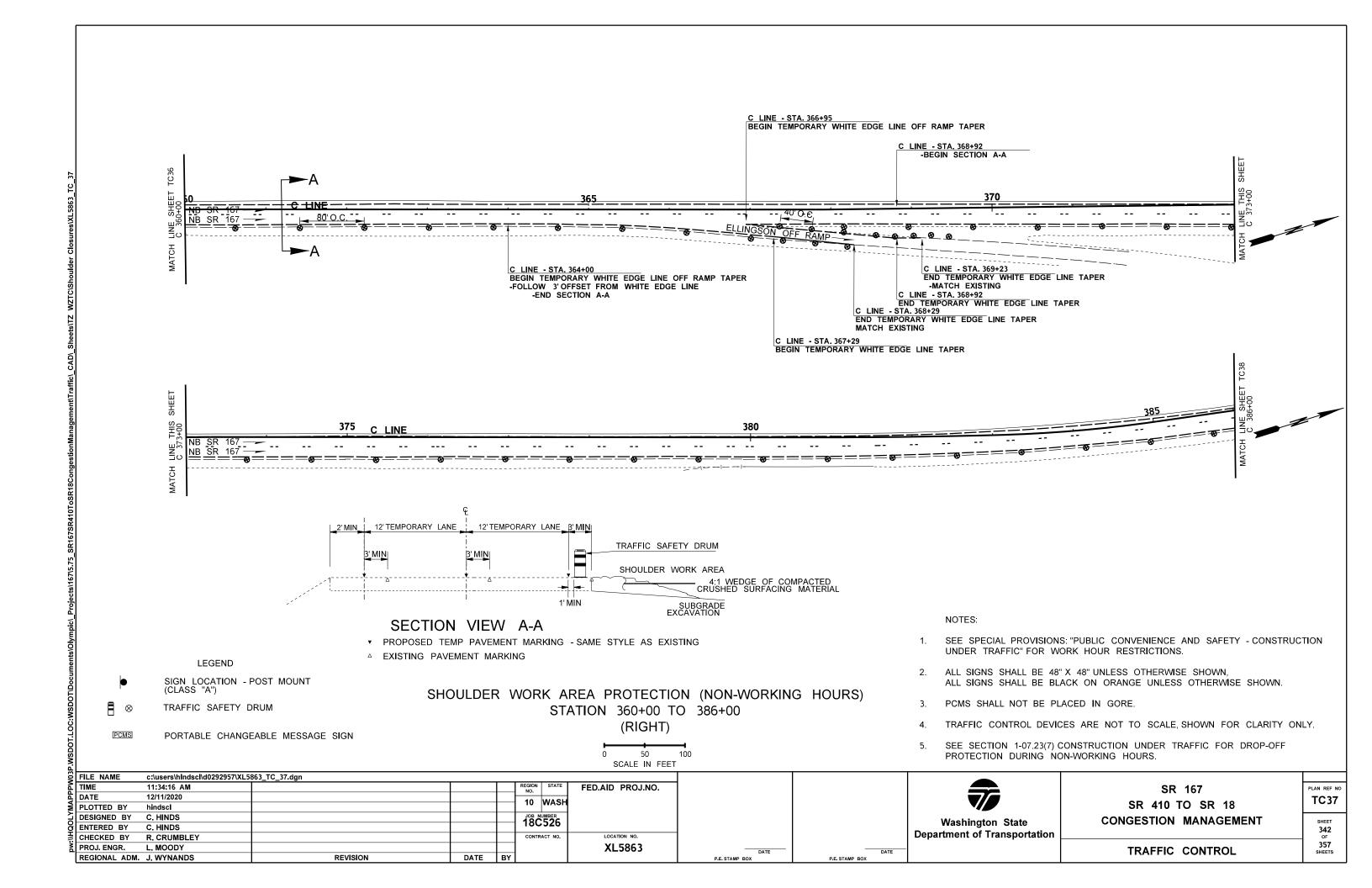


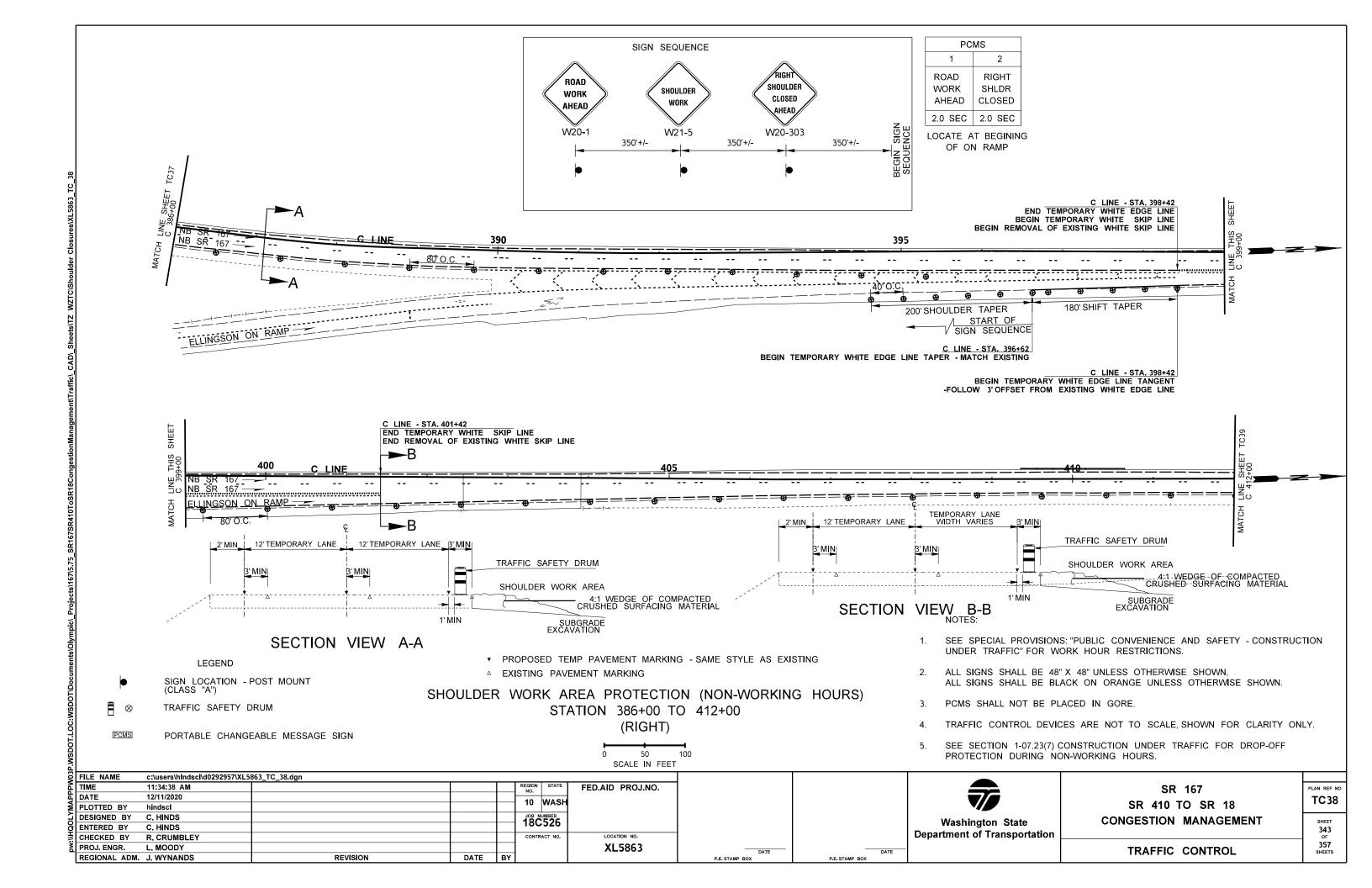


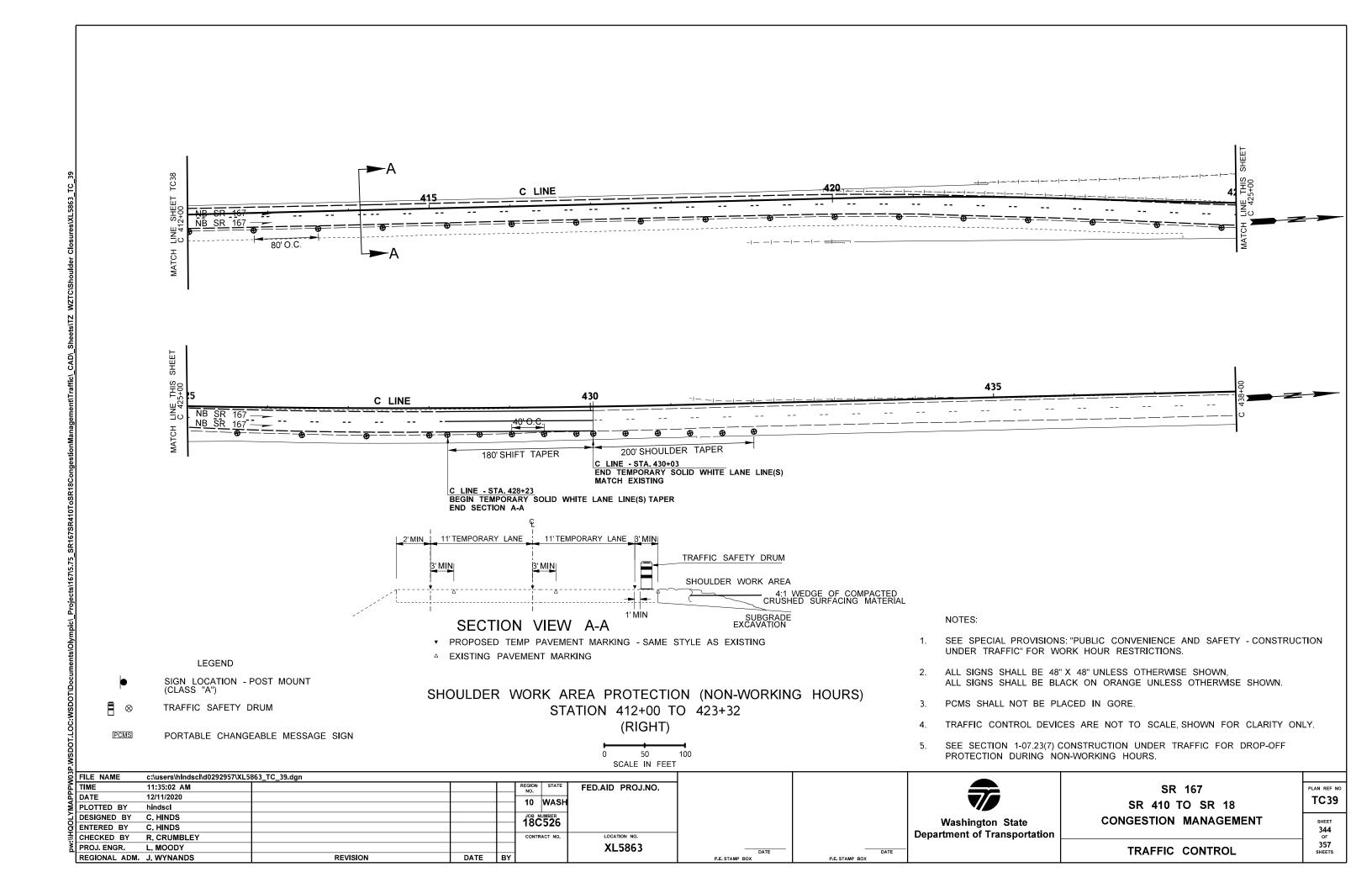


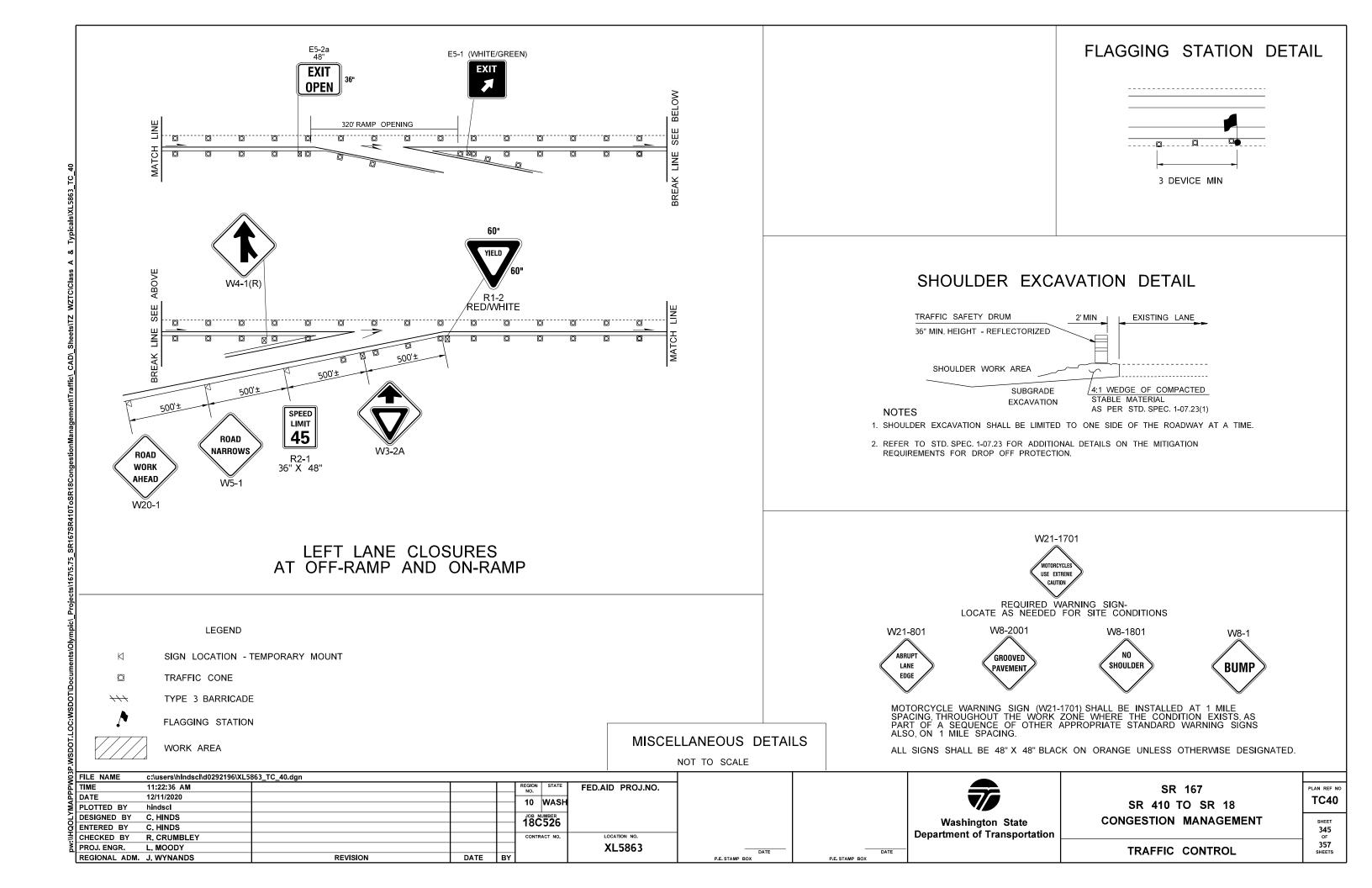


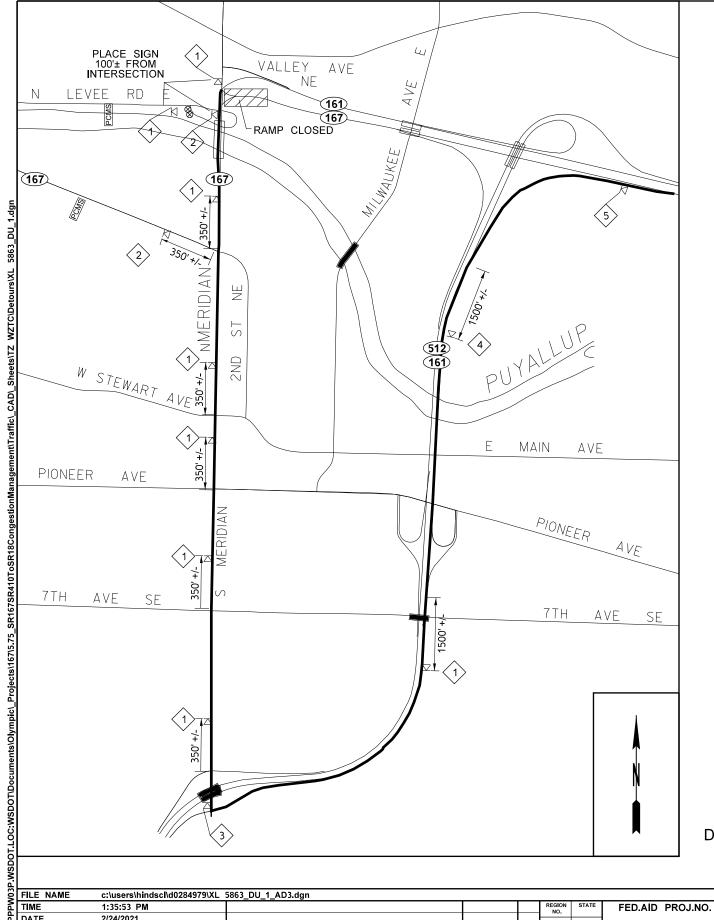




























M4-9 MOD 48" X 36"



DETOUR

M4-9 MOD 48" X 36"





M4-9 MOD 30" X 24"

PCMS									
1	2								
NB SR167 RAMP	FOLLOW								
CLOSED	DETOUR								
2.0 SEC	2.0 SEC								

PLACE AS SHOWN PLACE 1/4 MILE BEFORE DETOUR SIGNAGE,

## LEGEND

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

⊗ TRAFFIC SAFETY DRUM⟨x⟩ SIGN NOTE FLAG



WORK AREA

NOTES:

- SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- 2. ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE UNLESS OTHERWISE SHOWN.
- 3. USE A MINIMUM 3 DEVICE TAPER, 20'O.C., IN ADVANCE OF PCMS.
- 4. THIS PLAN SHALL BE USED WITH SHEET TC20.
- 5. DO NOT PLACE DETOUR SIGNS WITHIN 100FT OF ANY EXISTING TRAFFIC CONTROL SIGNS.

DETOUR OF SR 167 NB ON-RAMP AT MERIDIAN AVE

NOT TO SCALE

DATE 2/24/2021 10 WASH PLOTTED BY hindscl DESIGNED BY C. HINDS 18C526 ENTERED BY C. HINDS CHECKED BY R. CRUMBLEY LOCATION NO. 2/24/21 CH DATE BY AD3 - ADDED NOTE XL5863 PROJ. ENGR. L. MOODY REGIONAL ADM. J. WYNANDS REVISION

DATE
P.E. STAMP BOX

P.E. STAMP BOX

Washington State
Department of Transportation

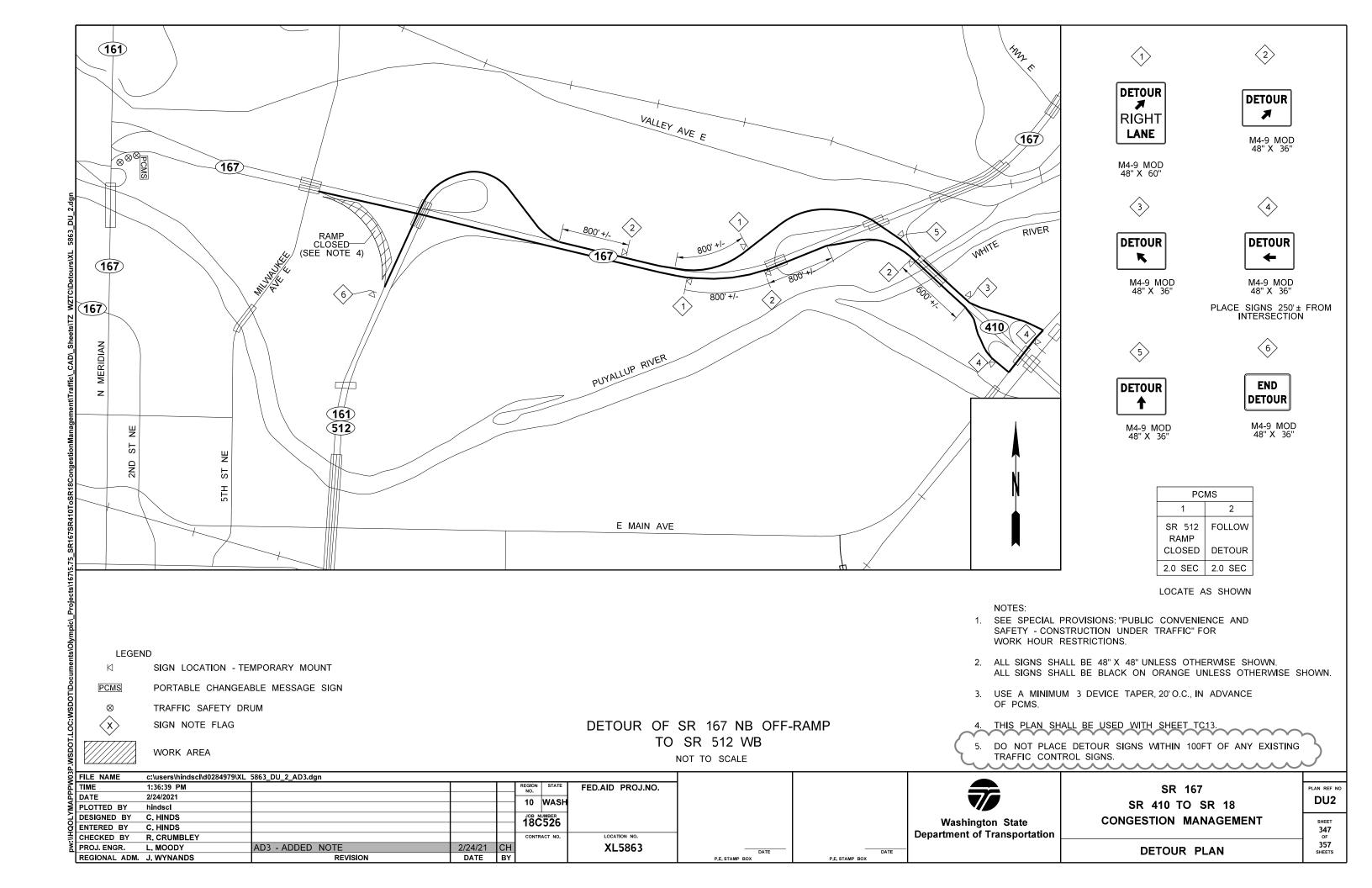
SR 167 SR 410 TO SR 18 CONGESTION MANAGEMENT

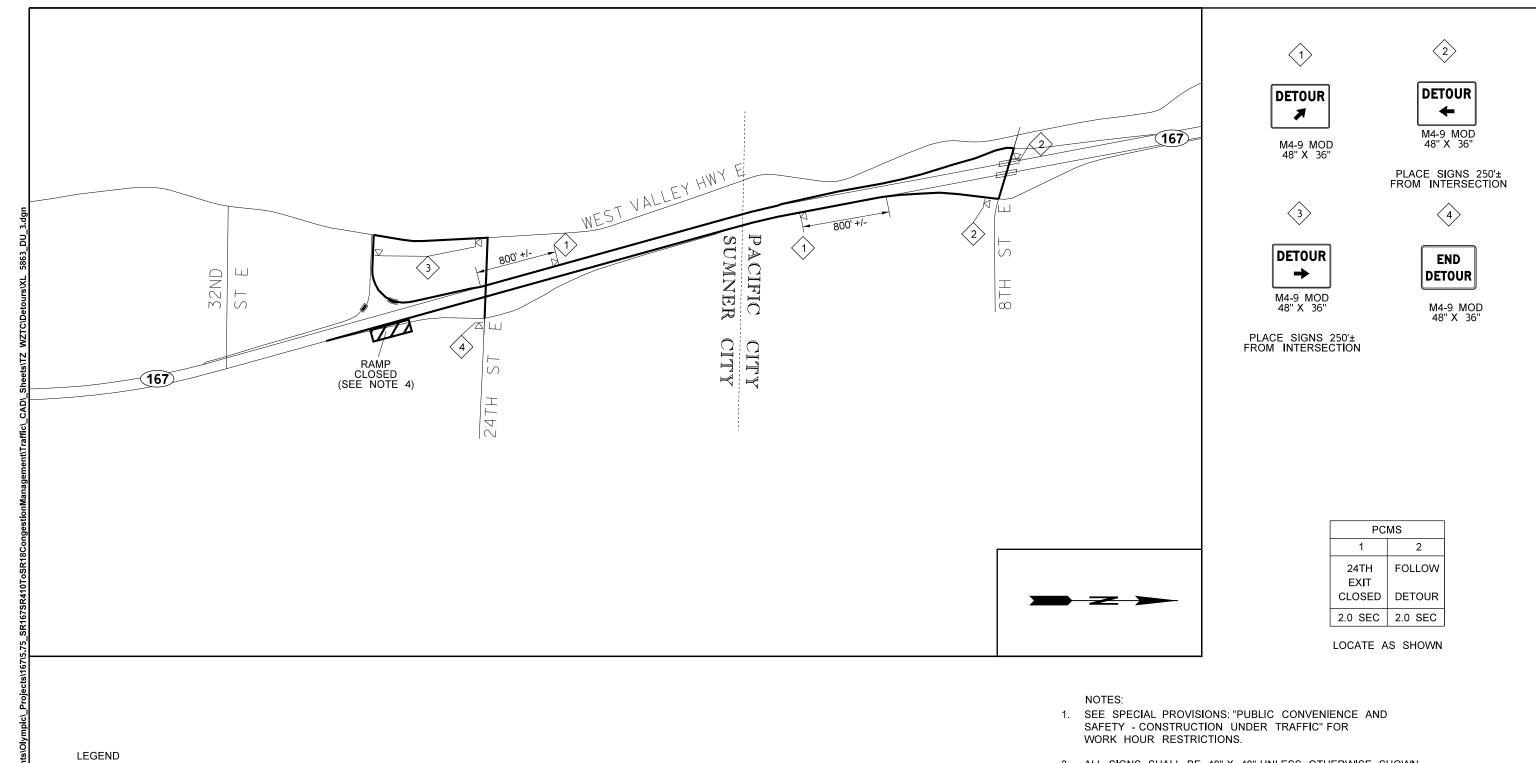
DETOUR PLAN

346 of 357 sheets

PLAN REF NO

DU1





SIGN LOCATION - TEMPORARY MOUNT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

SIGN NOTE FLAG

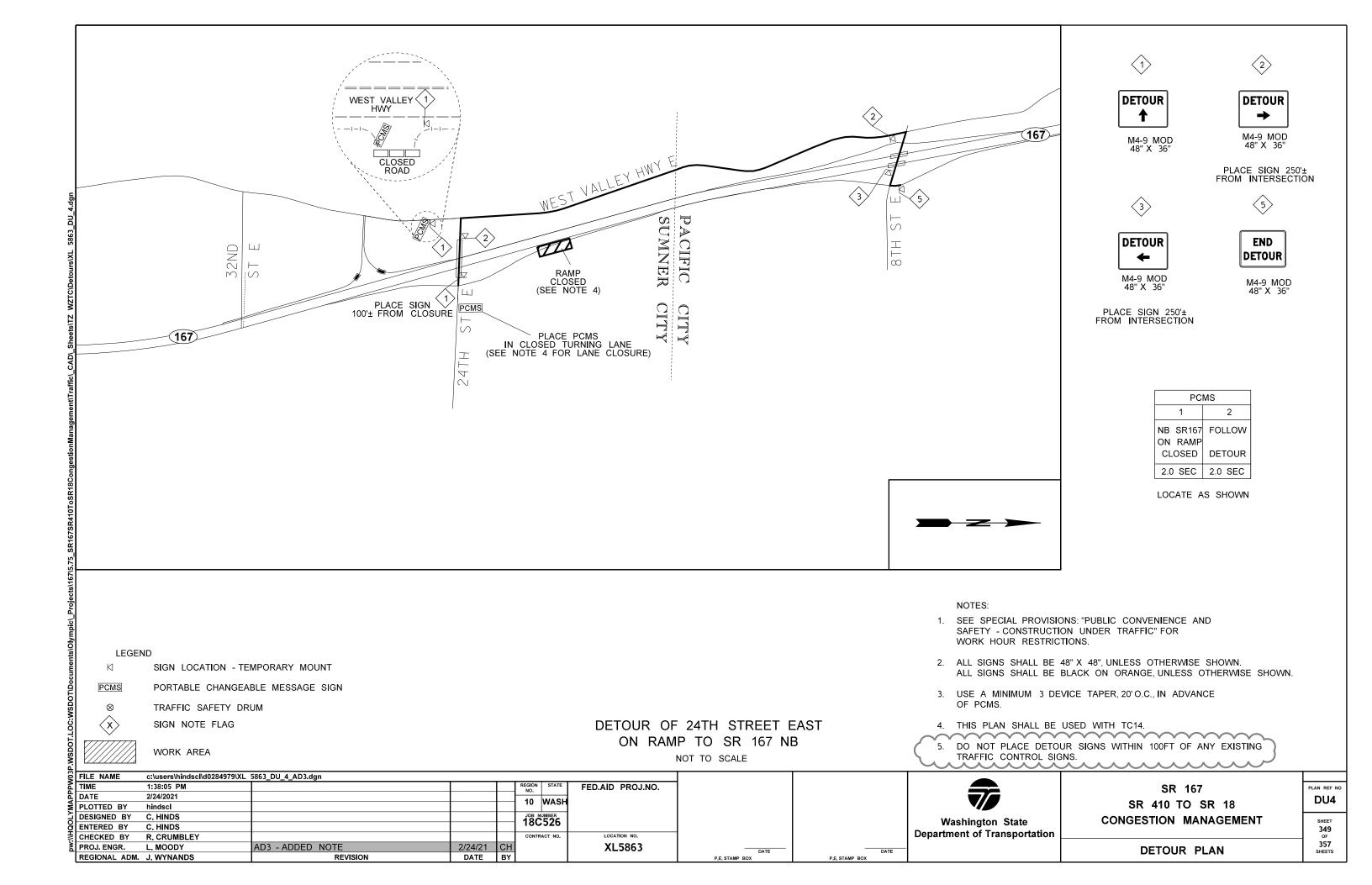
WORK AREA

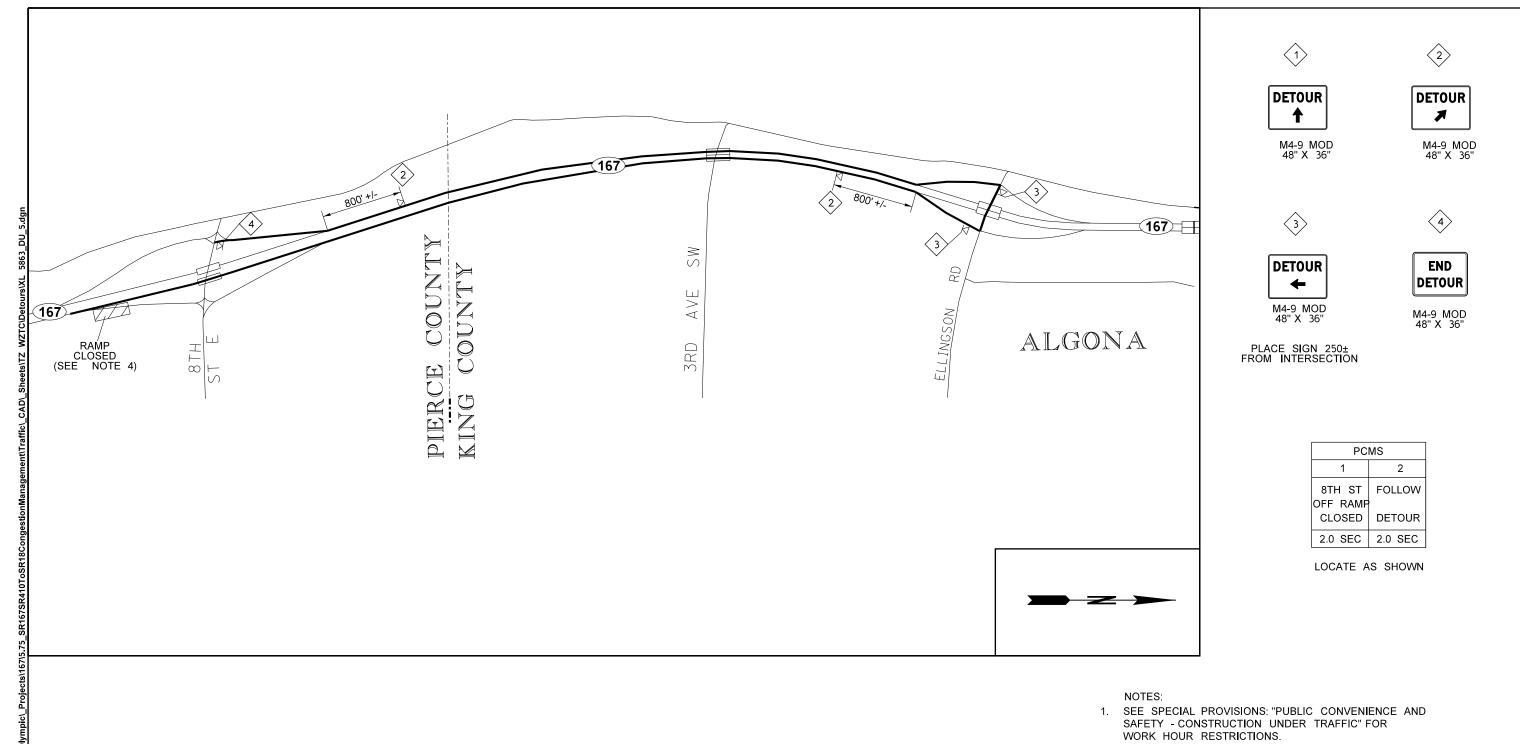
DETOUR OF SR 167 NB OFF-RAMP TO 24TH ST EAST

NOT TO SCALE

- 2. ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE UNLESS OTHERWISE SHOWN.
- USE A MINIMUM 3 DEVICE TAPER, 20'O.C., IN ADVANCE OF PCMS.
- 4. THIS PLAN SHALL BE USED WITH SHEET TC13.
- 5. DO NOT PLACE DETOUR SIGNS WITHIN 100FT OF ANY EXISTING TRAFFIC CONTROL SIGNS.

<u>a.</u>						·	-50000000000000000000000000000000000000				
FILE NAME	c:\users\hindscI\d0284979\XL	5863_DU_3_AD3.dgn									
Ž TIME	1:37:24 PM				REGION STATE	FED.AID PROJ.NO.				SR 167	PLAN REF NO
DATE	2/24/2021				10 WASH						DU3
PLOTTED BY	hindscl				10 WASH					SR 410 TO SR 18	
DESIGNED BY	C. HINDS				18C526				Washington State	CONGESTION MANAGEMENT	SHEET
ENTERED BY	C. HINDS				100320				·	SONSESTION MANAGEMENT	348
EHECKED BY	R. CRUMBLEY				CONTRACT NO.	LOCATION NO.			Department of Transportation		OF
PROJ. ENGR.	L. MOODY	AD3 - ADDED NOTE	2/24/21	СН		XL5863	DATE	DATE		DETOUR PLAN	357 SHEETS
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX		DETOOK TEAM	SHEETS





LEGEND

⋈ SIGN LOCATION - TEMPORARY MOUNT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

SIGN NOTE FLAG

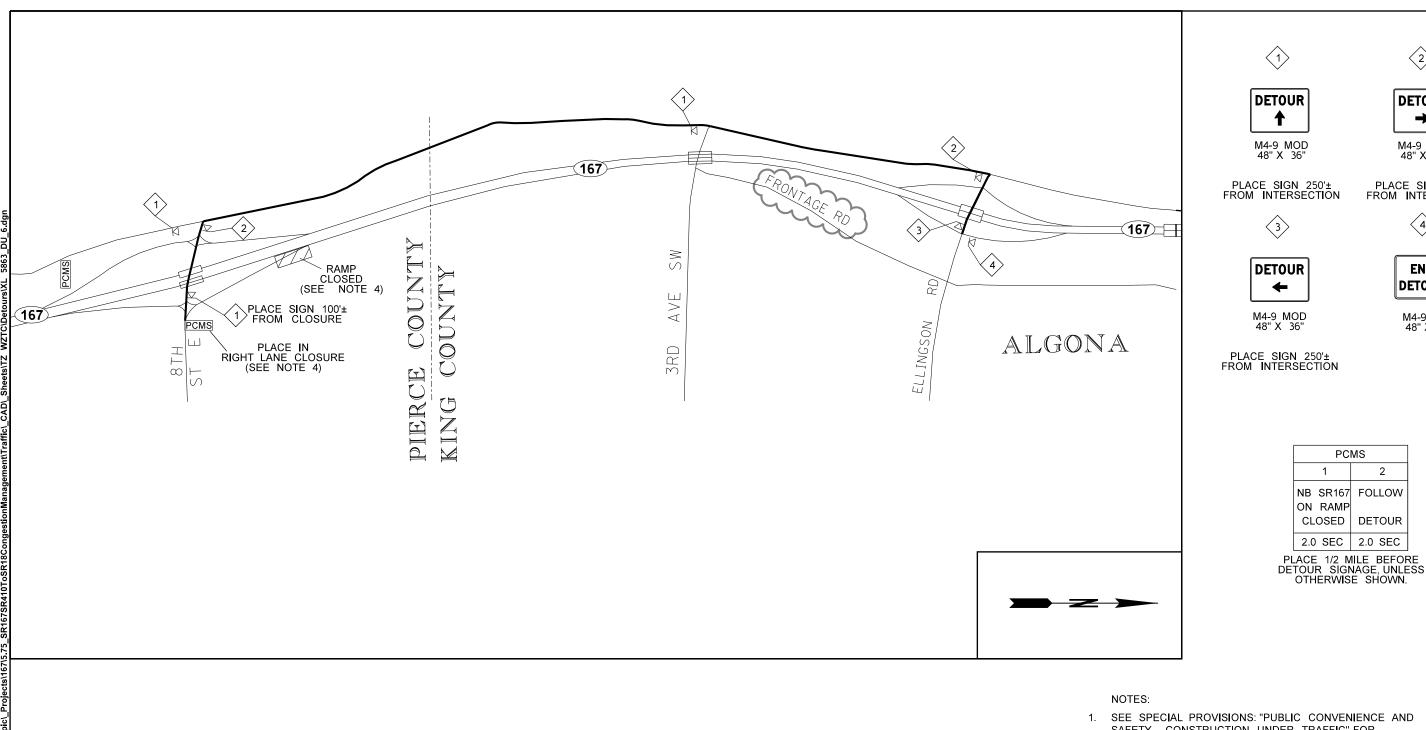
WORK AREA

DETOUR OF SR 167 NB OFF-RAMP TO 8TH STREET

NOT TO SCALE

- 2. ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWAISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- 3. USE A MINIMUM 3 DEVICE TAPER, 20'O.C., IN ADVANCE OF PCMS.
- 4. THIS PLAN SHALL BE USED WITH TC13.
- 5. DO NOT PLACE DETOUR SIGNS WITHIN 100FT OF ANY EXISTING TRAFFIC CONTROL SIGNS.

FILE NAME	c:\users\hindscl\d0284979\XL	5863_DU_5_AD3.dgn									
TIME	1:38:45 PM				REGION STATE	FED.AID PROJ.NO.				SR 167	PLAN REF NO
DATE	2/24/2021				10 WASH						DU5
PLOTTED BY	hindscl				I IU WASH					SR 410 TO SR 18	505
DESIGNED BY	C. HINDS				18C526				Washington State	CONGESTION MANAGEMENT	SHEET
ENTERED BY	C. HINDS				100320				3		350
E CHECKED BY	R. CRUMBLEY				CONTRACT NO.	LOCATION NO.			Department of Transportation		OF
PROJ. ENGR.	L. MOODY	AD3 - ADDED NOTE	2/24/21	СН		XL5863	DATE	DATE		DETOUR PLAN	357 SHEETS
REGIONAL ADM.	J. WYNANDS	REVISION	DATE	BY	1		P.E. STAMP BOX	P.E. STAMP BOX		DETOOK TEAM	SILETS



- SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY - CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS.
- 2. ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- USE A MINIMUM 3 DEVICE TAPER, 20'O.C., IN ADVANCE OF PCMS.
- 4. THIS PLAN SHALL BE USED WITH TC23.
- DO NOT PLACE DETOUR SIGNS WITHIN 100FT OF ANY EXISTING TRAFFIC CONTROL SIGNS.

## DETOUR OF 8TH STREET ON RAMP TO SR 167 NB

NOT TO SCALE

FILE NAME	
TIME	
DATE	

K

**PCMS** 

 $\langle x \rangle$ 

LEGEND

SIGN LOCATION - TEMPORARY MOUNT

TRAFFIC SAFETY DRUM

SIGN NOTE FLAG

WORK AREA

PORTABLE CHANGEABLE MESSAGE SIGN

c:\users\hindscl\d0284979\XL 5863\_DU\_6\_AD3.dgn 1:39:22 PM FED.AID PROJ.NO. 2/24/2021 10 WASH PLOTTED BY hindscl DESIGNED BY C. HINDS 18C526 ENTERED BY C. HINDS CHECKED BY R. CRUMBLEY CONTRACT NO. LOCATION NO. 2/24/21 CH DATE BY L. MOODY AD3 - ADDED NOTE XL5863 PROJ. ENGR. REGIONAL ADM. J. WYNANDS DATE REVISION

DATE DATE

Washington State **Department of Transportation** 

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

351 357 **DETOUR PLAN** 

PLAN REF NO

DU6

DETOUR

M4-9 MOD

48" X 36"

PLACE SIGN 250'± FROM INTERSECTION

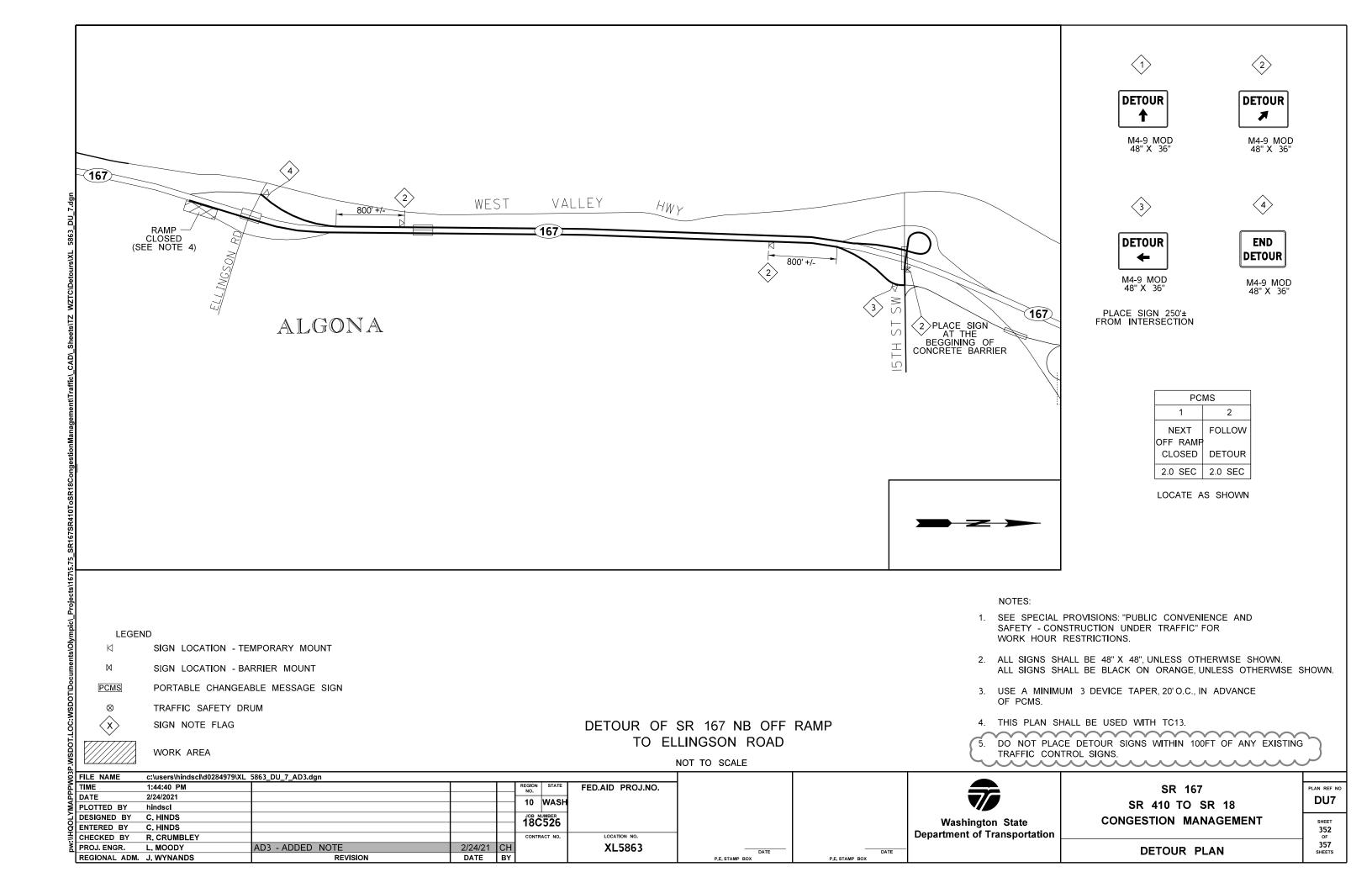
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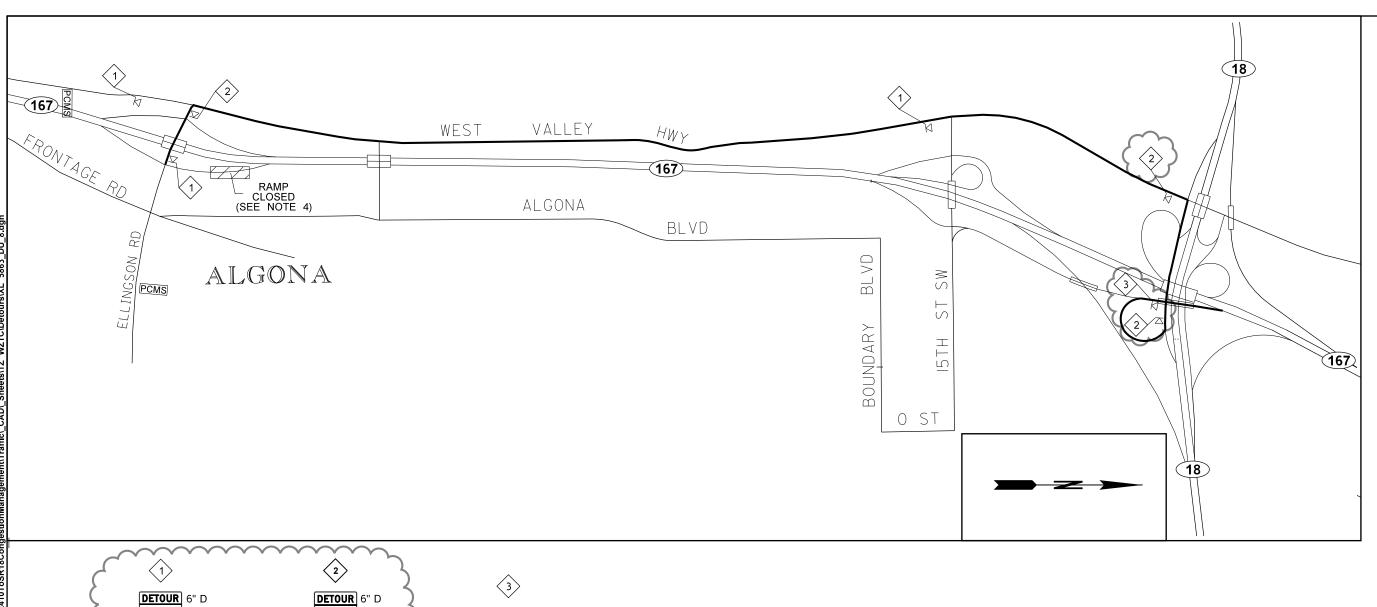
END

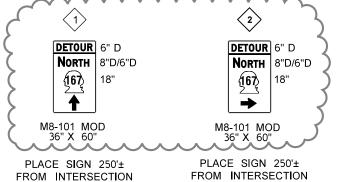
**DETOUR** 

M4-9 MOD 48" X 36"

2







END DETOUR

M4-9 MOD 48" X 36"

LEGEND

K SIGN LOCATION - TEMPORARY MOUNT

PORTABLE CHANGEABLE MESSAGE SIGN **PCMS** 

TRAFFIC SAFETY DRUM

 $\langle x \rangle$ SIGN NOTE FLAG

WORK AREA

PCMS									
1	2								
NB SR167	FOLLOW								
CLOSED	DETOUR								
2.0 SEC	2.0 SEC								
LOCATE AC CHOVAIN									

LOCATE AS SHOWN PLACE ½ MILE BEFORE DETOUR SIGNAGE.

DETOUR OF ELLINGSON ROAD ON RAMP TO SR 167 NB, AND SR 18 WB & EB

NOT TO SCALE

DATE

- NOTES:
- SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND SAFETY - CONSTRUCTION UNDER TRAFFIC" FOR WORK HOUR RESTRICTIONS
- 2. ALL SIGNS SHALL BE 48" X 48", UNLESS OTHERWISE SHOWN. ALL SIGNS SHALL BE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.
- 3. USE A MINIMUM 3 DEVICE TAPER, 20'O.C., IN ADVANCE OF PCMS.
- 4. THIS PLAN SHALL BE USED WITH TC24.
- DO NOT PLACE DETOUR SIGNS WITHIN 100FT OF ANY EXISTING TRAFFIC CONTROL SIGNS.

FILE NAME	c:\users\hindscl\d0284979\XL	5863_DU_8_AD3.dgn				
TIME	1:45:25 PM			REGION NO.	STATE	FED.AID PROJ.NO.
DATE	2/24/2021				WASH	
PLOTTED BY	hindscl			10	WASH	

DESIGNED BY C. HINDS 18C526 ENTERED BY C. HINDS CHECKED BY R. CRUMBLEY LOCATION NO. 2/24/21 CH DATE BY XL5863 PROJ. ENGR. L. MOODY AD3 - SIGN REVISION & ADDED NOTE REGIONAL ADM. J. WYNANDS REVISION

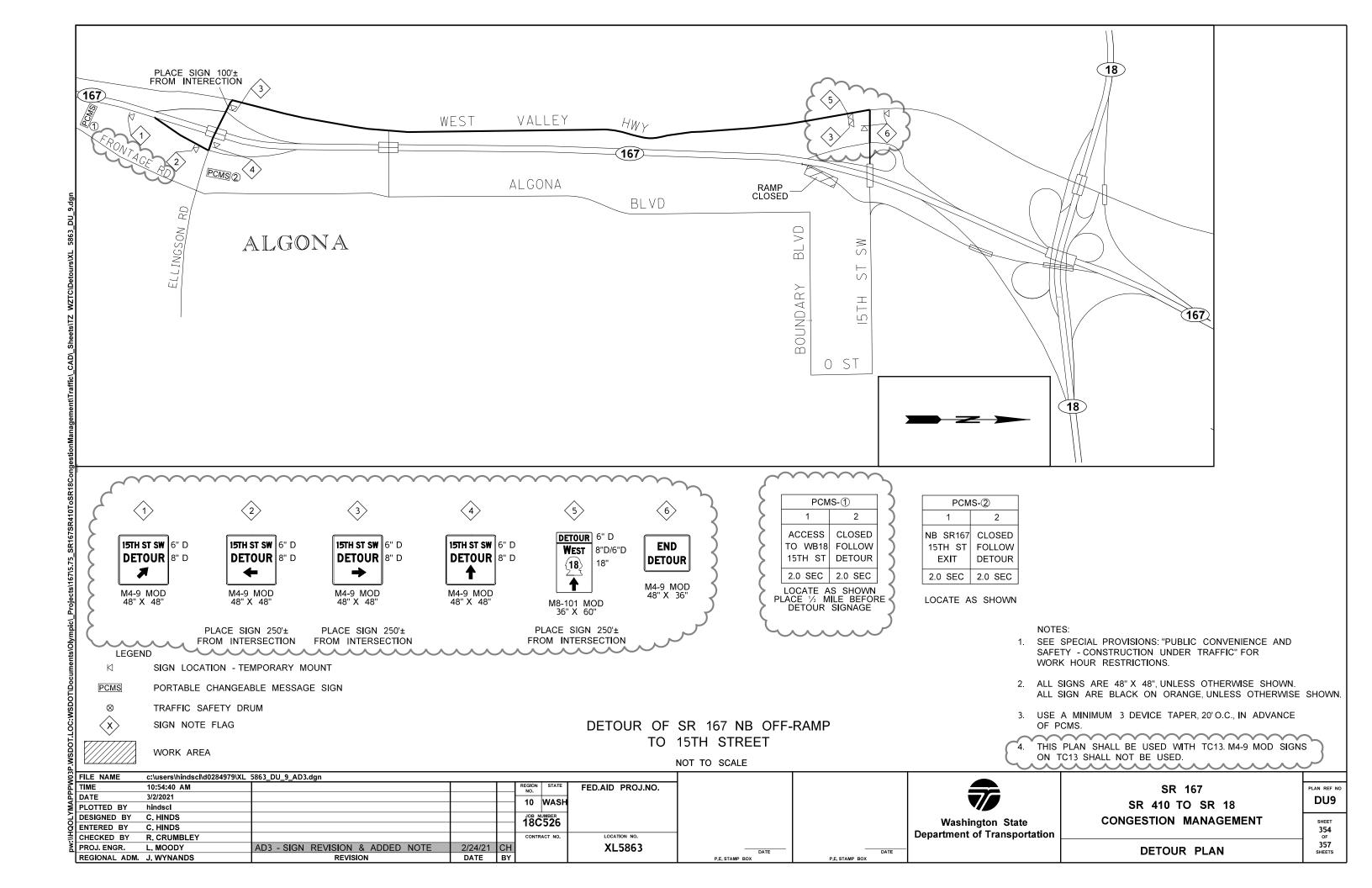
Washington State

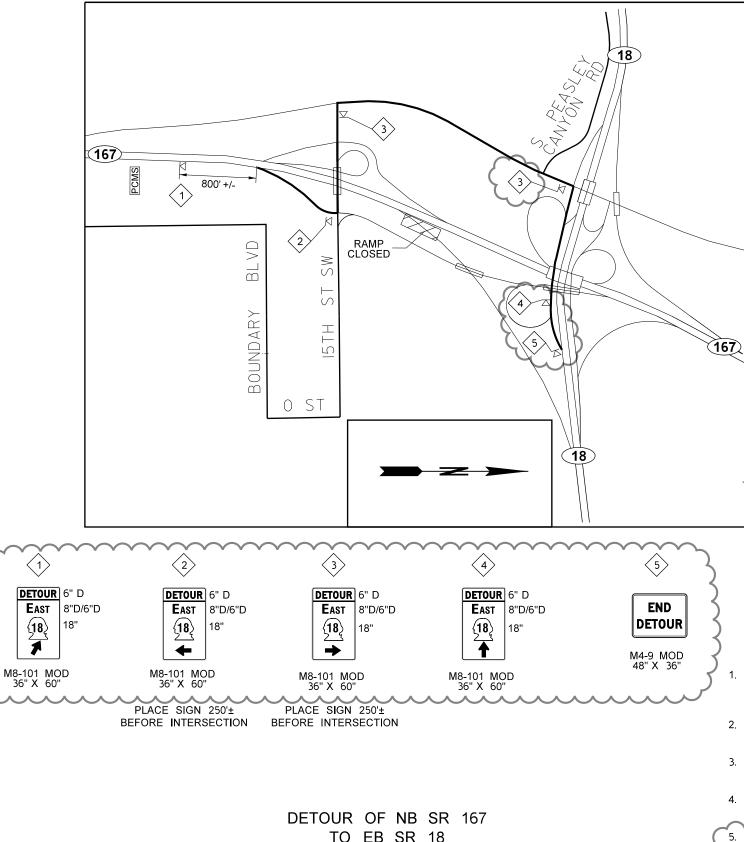
SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT DETOUR PLAN** 

353 357 SHEETS

PLAN REF NO DU8

**Department of Transportation** DATE





WORK HOUR RESTRICTIONS.

OF PCMS.

2. ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE SHOWN. ALL SIGNS ARE BLACK ON ORANGE, UNLESS OTHERWISE SHOWN.

3. USE A MINIMUM 3 DEVICE TAPER, 20'O.C., IN ADVANCE

SEE SPECIAL PROVISIONS: "PUBLIC CONVENIENCE AND

SAFETY - CONSTRUCTION UNDER TRAFFIC" FOR

THIS PLAN SHALL BE USED WITH TC13. M4-9 MOD SIGNS ON TC13 SHALL NOT BE USED.

DO NOT PLACE DETOUR SIGNS WITHIN 100FT OF ANY EXISTING TRAFFIC CONTROL SIGNS. 

TO EB SR 18 NOT TO SCALE

DATE

 $\langle x \rangle$ 

K

**PCMS** 

WORK AREA

SIGN NOTE FLAG

TRAFFIC SAFETY DRUM

**PCMS** 

EB SR18 FOLLOW

2.0 SEC | 2.0 SEC

LOCATE AS SHOWN

SIGN LOCATION - TEMPORARY MOUNT

PORTABLE CHANGEABLE MESSAGE SIGN

RAMP

CLOSED

2

DETOUR

c:\users\hindscl\d0284979\XL 5863\_DU\_10\_AD3.dgn FILE NAME TIME 1:47:29 PM REGION NO. FED.AID PROJ.NO. DATE 2/24/2021 10 WASH PLOTTED BY hindscl DESIGNED BY C. HINDS 18C526 ENTERED BY C. HINDS CHECKED BY R. CRUMBLEY LOCATION NO. XL5863 PROJ. ENGR. AD3 - SIGN REVISION & ADDED NOTE L. MOODY DATE REGIONAL ADM. J. WYNANDS REVISION

Washington State **Department of Transportation** DATE

SR 167 SR 410 TO SR 18 **CONGESTION MANAGEMENT** 

**DETOUR PLAN** 

355 357 SHEETS

PLAN REF NO

DU10

